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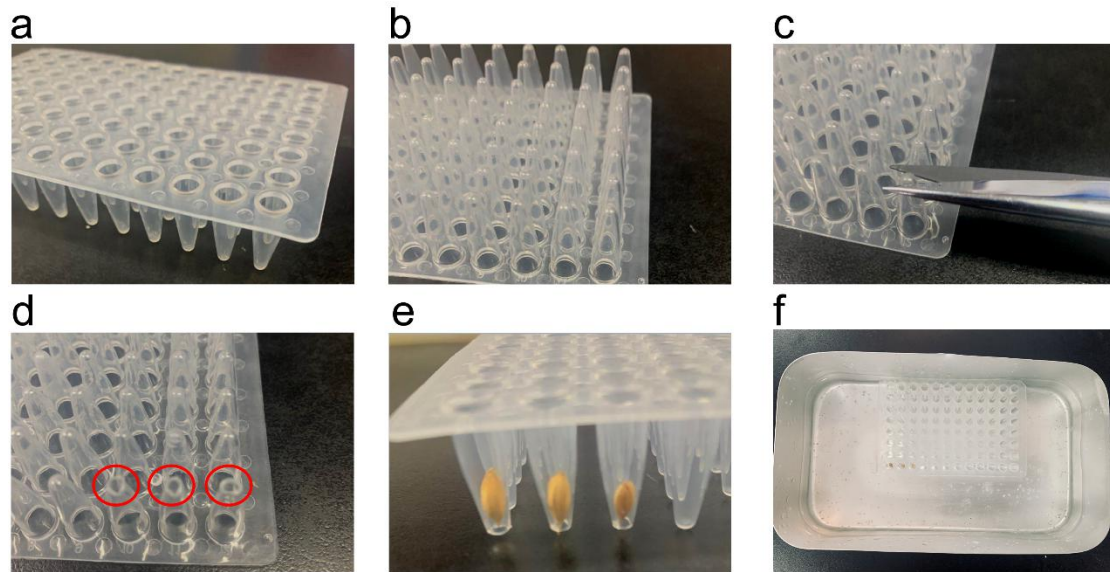
**Supplementary information**

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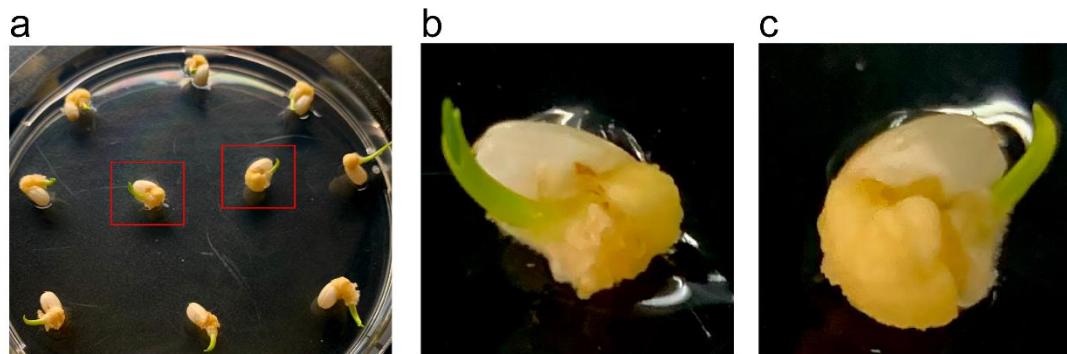
# **An unbiased method for evaluating the genome-wide specificity of base editors in rice**

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In the format provided by the  
authors and unedited



**Supplementary Figure 1** Growing the wild-type plants using 96-well plates (corresponding to Step 29). (a and b) The top (a) and bottom (b) view of 96-well plates. (c, d and e) Use a scissor to cut off the bottoms of the wells (as circled in red) in order to let the roots grow in water. (f) Cultivate the wild-type plants in Kimura B solution.



**Supplementary Figure 2** A closer look at calluses developed from mature seeds (corresponding to Step 38). (a) The developing calluses on M1 medium on the first ten days of incubation. (b and c) A closer look at calluses developed from mature seeds in red boxes in (a).

**Supplementary Note 1. Complete coding sequences of the pH-CBE in this study.** The NLSs are written in lower cases. The codon-optimized APOBEC1, linker, and UGI are highlighted in blue, green, and brown, respectively. The codon-optimized nCas9 (D10A) is shown in bold.

ATGccgaagaagaagcgcaaggtg**TCCAGCGAGACGGGCCAGTGGCTGTCGACCCAACGCTGCGCAGGCGCAT**  
**CGAGCCGCACGAGTTCGAGGTCTTCTTCGACCCCAGGGAGCTGCGCAAGGAGACGTGCCTCCTGTAC**  
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**GAGGTCAACTTCATCGAGAAGTTCACCACGGAGAGGTACTTCTGCCCGAACACCCGCTGCTCCATCAC**  
**GTGGTTCTCTGTCTGGAGCCCCTGCGGCGAGTGCTCCAGGGCGATCACCGAGTTCCTCAGCCGCTACC**  
**CGCACGTGACGCTGTTTCATCTACATCGCTAGGCTCTACCACCACGCTGACCCCAGGAACAGGCAGGGC**  
**CTCCGCGACCTGATCTCCAGCGGCGTGACCATCCAGATCATGACGGAGCAGGAGTCCGGGCTACTGCTG**  
**GAGGAACTTCGTCAACTACTCCCCAAGCAACGAGGCTCACTGGCCGAGGTACCCACACCTCTGGGTG**  
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**ATCTGTCGGACGCCATCCTCCTGTCTGATATTCTCAGGGTGAACACCGAGATTACGAAGGCTCC**  
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**CTGGTCAGGCAGCAGCTCCCCGAGAAGTACAAGGAGATCTTCTTCGATCAGTCGAAGAACGGC**  
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**AAGAAGATTGAGTGCTTCGATTCCGTCGAGATCTCTGGCGTTGAGGACCGCTTCAACGCCCTCCC**  
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**Supplementary Note 2. Complete coding sequences of the pH-HF1-CBE in this study.** The NLSs are written in lower cases. The codon-optimized APOBEC1, XTEN linker, and UGI are highlighted in blue, green, and brown, respectively. The codon-optimized HF1-nCas9 (D10A) is shown in bold.

ATGccgaagaagaagcgcaaggtgTCCAGCGAGACGGGCCCAGTGGCTGTCGACCCAACGCTGCGCAGGCGCAT  
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CATGCTCCTGACGAGCGACGCTCCAGAGTACAAGCCATGGGCTCTCGTGATCCAGGACAGCAACGGC  
GAGAACAAAGATCAAGATGCTGTCCGGCGGCTCCcgaagaagaagcgaagtcTGA

**Supplementary Note 3. Complete coding sequences of the pH-PABE-7 in this study.** The NLSs are written in lower cases. The codon-optimized Tad and linker are highlighted in blue and brown, respectively. The codon-optimized nCas9 (D10A) is shown in bold.

ATG**TCCGAGGTGGAGTTCTCTCACGAGTATTGGATGAGGCACGCTCTTACACTTGCTAAGAGAGCTTG**  
**GGACGAAAGAGAAGTGCCAGTTGGCGCCGTTCTTGTGCATAATAATAGGGTGATCGGCGAGGGTTGG**  
**AATAGACCAATTGGAAGGCATGATCCAACAGCTCACGCAGAGATTATGGCTCTCAGACAAGGCGGCCT**  
**CGTTATGCAGAACTACAGGCTCATTGACGCTACACTCTACGTGACACTCGAACCTTGCGTTATGTGCGC**  
**CGGAGCTATGATTCACTTAGGATTGGCAGGGTCGTGTTTGGAGCTAGGGACGCTAAAACAGGAGCCG**  
**CCGGATCTCTTATGGACGTGTTGCATCATCCAGGCATGAACCATAGGGTGAGATTACAGAGGGCATTC**  
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**AAGAAGGCTCAGTCTTCTACAGATAGCGGAGGATCTTCCGGAGGATCTAGCGGCTCCGAGA**  
**CACCAGGAACATCCGAAAGCGCTACACCAGAATCTAGCGGAGGCTCTTCCGGAGGATC**  
**TTCTGAAGTGGAGTTCTCCACGAGTATTGGATGAGGCACGCTCTTACACTTGCTAAAAGGGCTAGGG**  
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**TAGAGCCATTGGACTCCATGATCCAACAGCTCACGCAGAGATTATGGCTCTTAGACAAGGCGGCCTCG**  
**TTATGCAGAATTACAGACTCATCGACGCCACACTCTACGTTACCTTCGAACCTTGCGTTATGTGCGCCG**  
**GAGCTATGATCCATTCTAGGATTGGCAGGGTCGTGTTCCGGCGTTAGAAACGCTAAGACAGGAGCTGCA**  
**GGCTCTCTTATGGACGTTCTTCATTACCCAGGCATGAATCATAGAGTGGAGATCACAGAAGGCATTCTT**  
**GCAGACGAGTGCGCAGCTCTCCTTTGCTATTCTTCAGGATGCCGAGGCAAGTTTTCAACGCTCAGAA**  
**GAAGGCCAGTCTTCTACAGATTCGGGCGGATCTTCTGGAGGATCTAGCGGCTCCGAGACA**  
**CCAGGAACATCCGAATCCGCTACACCAGAGTCTTCTGGAGGATCTAGCGGAGGATCTC**  
**TTAAGGACAAGAAGTACTCGATCGGCCTCGCCATTGGGACTAACTCTGTTGGCTGGGCCGTGA**  
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**GTCGGACGCCATCCTCCTGTCTGATATTCTCAGGGTGAACACCGAGATTACGAAGGCTCCGCTC**  
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**GAAGATGGACGGCACGGAGGAGCTGCTGGTGAAGCTCAATCGCGAGGACCTCCTGAGGAAGC**  
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**GAGGAGGCAGGAGGACTTCTACCCTTTCTCAAGGATAACCGCGAGAAGATCGAGAAGATTCT**  
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ATCCGGAAGCGCCCCCTCATCGAGACGAACGGCGAGACGGGGGAGATCGTGTGGGACAAGGG  
CAGGGATTTTCGCGACCGTCAGGAAGGTTCTCTCCATGCCACAAGTGAATATCGTCAAGAAGACA  
GAGGTCCAGACTGGCGGGTTCTCTAAGGAGTCAATTCTGCCTAAGCGGAACAGCGACAAGCTC  
ATCGCCCGCAAGAAGGACTGGGATCCGAAGAAGTACGGCGGGTTCGACAGCCCCACTGTGGCC  
TACTCGGTCTCGTTGTGGCGAAGGTTGAGAAGGGCAAGTCCAAGAAGCTCAAGAGCGTGAAG  
GAGCTGCTGGGGATCACGATTATGGAGCGCTCCAGCTTCGAGAAGAACCCGATCGATTTCTTG  
AGGCGAAGGGCTACAAGGAGGTGAAGAAGGACCTGATCATTAAAGCTCCCCAAGTACTCACTCTT  
CGAGCTGGAGAACGGCAGGAAGCGGATGCTGGCTTCCGCTGGCGAGCTGCAGAAGGGGAACG  
AGCTGGCTCTGCCGTCCAAGTATGTGAACCTCCTCTACCTGGCTCCCACTACGAGAAGCTCAA  
GGGCAGCCCCGAGGACAACGAGCAGAAGCAGCTGTTTCGTCGAGCAGCACAAGCATTACCTCGA  
CGAGATCATTGAGCAGATTTCCGAGTTCTCCAAGCGCGTGATCCTGGCCGACGCGAATCTGGAT  
AAGGTCCTCTCCGCGTACAACAAGCACCGCGACAAGCCAATCAGGGAGCAGGCTGAGAATATC  
ATTCATCTCTTACCCTGACGAACCTCGGCGCCCCCTGCTGCTTTCAAGTACTTCGACACAACCTAT  
CGATCGCAAGAGGTACACAAGCACTAAGGAGGTCCTGGACGCGACCCTCATCCACCAGTCGATT  
ACCGGCCTCTACGAGACGCGCATCGACCTGTCTCAGCTCGGGGGCGACTCCGGCGGCAGCccaaa  
gaagaagcggaaggtgTCTGGAGGTTCTcctaagaaaaagagaaaagtgTCCGGCGGCTCCcgaagaagaagcgcaaggtgTAG

**Supplementary Table 1.** Summary of percentages of the identified SNVs at given WGS depth. This table is generated by re-analyzing the previously published data<sup>1</sup>.

| Depth of SNVs<br>Depth of WGS | 1×     | 2×     | 4×     | 10×    | 15×    | 20×    | 25×    | 30×    |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2×                            | 75.45% | 49.95% | 15.80% | 0.53%  | 0.28%  | 0.22%  | 0.18%  | 0.15%  |
| 6×                            | 96.92% | 92.11% | 72.56% | 10.92% | 1.34%  | 0.53%  | 0.43%  | 0.38%  |
| 10×                           | 98.50% | 97.40% | 92.63% | 44.45% | 10.87% | 1.98%  | 0.70%  | 0.52%  |
| 14×                           | 98.82% | 98.24% | 96.70% | 74.80% | 35.71% | 10.27% | 2.40%  | 0.87%  |
| 20×                           | 99.02% | 98.63% | 97.87% | 92.56% | 73.97% | 42.06% | 16.43% | 4.97%  |
| 24×                           | 99.10% | 98.76% | 98.14% | 95.50% | 87.08% | 64.98% | 35.81% | 14.55% |
| 30×                           | 99.19% | 98.90% | 98.40% | 96.84% | 94.15% | 85.63% | 66.33% | 40.59% |
| 34×                           | 99.23% | 98.96% | 98.51% | 97.22% | 95.63% | 91.45% | 80.07% | 59.43% |
| 40×                           | 99.28% | 99.04% | 98.64% | 97.59% | 96.56% | 94.82% | 90.41% | 79.74% |
| 46×                           | 99.31% | 99.09% | 98.74% | 97.83% | 97.03% | 95.99% | 94.10% | 89.57% |
| 50×                           | 99.33% | 99.12% | 98.80% | 97.96% | 97.25% | 96.41% | 95.14% | 92.54% |

**Supplementary Table 2.** Summary of SNVs belonging to different number of wild-type plants with five repeats. This table is generated by re-analyzing the previously published data<sup>1</sup>.

| Number of wild-type plants | Number of repeats | Name            | Type | Number of SNVs |
|----------------------------|-------------------|-----------------|------|----------------|
| 2                          | 0                 | ABE-ACC-T4-#1   | ABE  | 389            |
| 2                          | 1                 | ABE-ACC-T4-#1   | ABE  | 396            |
| 2                          | 2                 | ABE-ACC-T4-#1   | ABE  | 389            |
| 2                          | 3                 | ABE-ACC-T4-#1   | ABE  | 452            |
| 2                          | 4                 | ABE-ACC-T4-#1   | ABE  | 433            |
| 2                          | 0                 | ABE-ACC-T4-#2   | ABE  | 303            |
| 2                          | 1                 | ABE-ACC-T4-#2   | ABE  | 298            |
| 2                          | 2                 | ABE-ACC-T4-#2   | ABE  | 315            |
| 2                          | 3                 | ABE-ACC-T4-#2   | ABE  | 403            |
| 2                          | 4                 | ABE-ACC-T4-#2   | ABE  | 347            |
| 2                          | 0                 | ABE-ACC-T4-#3   | ABE  | 404            |
| 2                          | 1                 | ABE-ACC-T4-#3   | ABE  | 403            |
| 2                          | 2                 | ABE-ACC-T4-#3   | ABE  | 404            |
| 2                          | 3                 | ABE-ACC-T4-#3   | ABE  | 486            |
| 2                          | 4                 | ABE-ACC-T4-#3   | ABE  | 457            |
| 2                          | 0                 | ABE-ALS-T2-#1   | ABE  | 338            |
| 2                          | 1                 | ABE-ALS-T2-#1   | ABE  | 319            |
| 2                          | 2                 | ABE-ALS-T2-#1   | ABE  | 341            |
| 2                          | 3                 | ABE-ALS-T2-#1   | ABE  | 391            |
| 2                          | 4                 | ABE-ALS-T2-#1   | ABE  | 378            |
| 2                          | 0                 | ABE-ALS-T2-#2   | ABE  | 302            |
| 2                          | 1                 | ABE-ALS-T2-#2   | ABE  | 287            |
| 2                          | 2                 | ABE-ALS-T2-#2   | ABE  | 310            |
| 2                          | 3                 | ABE-ALS-T2-#2   | ABE  | 372            |
| 2                          | 4                 | ABE-ALS-T2-#2   | ABE  | 343            |
| 2                          | 0                 | ABE-CDC48-T1-#1 | ABE  | 333            |
| 2                          | 1                 | ABE-CDC48-T1-#1 | ABE  | 334            |
| 2                          | 2                 | ABE-CDC48-T1-#1 | ABE  | 336            |
| 2                          | 3                 | ABE-CDC48-T1-#1 | ABE  | 404            |
| 2                          | 4                 | ABE-CDC48-T1-#1 | ABE  | 372            |
| 2                          | 0                 | ABE-CDC48-T1-#2 | ABE  | 376            |
| 2                          | 1                 | ABE-CDC48-T1-#2 | ABE  | 383            |
| 2                          | 2                 | ABE-CDC48-T1-#2 | ABE  | 382            |
| 2                          | 3                 | ABE-CDC48-T1-#2 | ABE  | 456            |
| 2                          | 4                 | ABE-CDC48-T1-#2 | ABE  | 407            |
| 2                          | 0                 | ABE-CDC48-T1-#3 | ABE  | 316            |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 2 | 1 | ABE-CDC48-T1-#3   | ABE | 341 |
| 2 | 2 | ABE-CDC48-T1-#3   | ABE | 313 |
| 2 | 3 | ABE-CDC48-T1-#3   | ABE | 390 |
| 2 | 4 | ABE-CDC48-T1-#3   | ABE | 359 |
| 2 | 0 | ABE-CDC48-T1-#4   | ABE | 299 |
| 2 | 1 | ABE-CDC48-T1-#4   | ABE | 289 |
| 2 | 2 | ABE-CDC48-T1-#4   | ABE | 295 |
| 2 | 3 | ABE-CDC48-T1-#4   | ABE | 426 |
| 2 | 4 | ABE-CDC48-T1-#4   | ABE | 391 |
| 2 | 0 | ABE-CDC48-T1-#5   | ABE | 426 |
| 2 | 1 | ABE-CDC48-T1-#5   | ABE | 420 |
| 2 | 2 | ABE-CDC48-T1-#5   | ABE | 432 |
| 2 | 3 | ABE-CDC48-T1-#5   | ABE | 540 |
| 2 | 4 | ABE-CDC48-T1-#5   | ABE | 504 |
| 2 | 0 | ABE-CDC48-T1-#6   | ABE | 359 |
| 2 | 1 | ABE-CDC48-T1-#6   | ABE | 347 |
| 2 | 2 | ABE-CDC48-T1-#6   | ABE | 361 |
| 2 | 3 | ABE-CDC48-T1-#6   | ABE | 456 |
| 2 | 4 | ABE-CDC48-T1-#6   | ABE | 440 |
| 2 | 0 | ABE-DEP1-T1-#1    | ABE | 364 |
| 2 | 1 | ABE-DEP1-T1-#1    | ABE | 354 |
| 2 | 2 | ABE-DEP1-T1-#1    | ABE | 369 |
| 2 | 3 | ABE-DEP1-T1-#1    | ABE | 470 |
| 2 | 4 | ABE-DEP1-T1-#1    | ABE | 442 |
| 2 | 0 | ABE-DEP1-T1-#2    | ABE | 291 |
| 2 | 1 | ABE-DEP1-T1-#2    | ABE | 290 |
| 2 | 2 | ABE-DEP1-T1-#2    | ABE | 300 |
| 2 | 3 | ABE-DEP1-T1-#2    | ABE | 381 |
| 2 | 4 | ABE-DEP1-T1-#2    | ABE | 378 |
| 2 | 0 | ABE-DEP1-T1-#3    | ABE | 324 |
| 2 | 1 | ABE-DEP1-T1-#3    | ABE | 330 |
| 2 | 2 | ABE-DEP1-T1-#3    | ABE | 336 |
| 2 | 3 | ABE-DEP1-T1-#3    | ABE | 451 |
| 2 | 4 | ABE-DEP1-T1-#3    | ABE | 406 |
| 2 | 0 | ABE-NRT1.1B-T2-#1 | ABE | 274 |
| 2 | 1 | ABE-NRT1.1B-T2-#1 | ABE | 261 |
| 2 | 2 | ABE-NRT1.1B-T2-#1 | ABE | 276 |
| 2 | 3 | ABE-NRT1.1B-T2-#1 | ABE | 333 |
| 2 | 4 | ABE-NRT1.1B-T2-#1 | ABE | 308 |
| 2 | 0 | ABE-NRT1.1B-T2-#2 | ABE | 306 |
| 2 | 1 | ABE-NRT1.1B-T2-#2 | ABE | 307 |
| 2 | 2 | ABE-NRT1.1B-T2-#2 | ABE | 309 |
| 2 | 3 | ABE-NRT1.1B-T2-#2 | ABE | 392 |

|   |   |                   |      |     |
|---|---|-------------------|------|-----|
| 2 | 4 | ABE-NRT1.1B-T2-#2 | ABE  | 345 |
| 2 | 0 | ABE-NRT1.1B-T2-#3 | ABE  | 205 |
| 2 | 1 | ABE-NRT1.1B-T2-#3 | ABE  | 213 |
| 2 | 2 | ABE-NRT1.1B-T2-#3 | ABE  | 208 |
| 2 | 3 | ABE-NRT1.1B-T2-#3 | ABE  | 304 |
| 2 | 4 | ABE-NRT1.1B-T2-#3 | ABE  | 278 |
| 2 | 0 | ABE-NRT1.1B-T2-#4 | ABE  | 592 |
| 2 | 1 | ABE-NRT1.1B-T2-#4 | ABE  | 587 |
| 2 | 2 | ABE-NRT1.1B-T2-#4 | ABE  | 603 |
| 2 | 3 | ABE-NRT1.1B-T2-#4 | ABE  | 698 |
| 2 | 4 | ABE-NRT1.1B-T2-#4 | ABE  | 668 |
| 2 | 0 | ABE-NRT1.1B-T2-#5 | ABE  | 690 |
| 2 | 1 | ABE-NRT1.1B-T2-#5 | ABE  | 698 |
| 2 | 2 | ABE-NRT1.1B-T2-#5 | ABE  | 688 |
| 2 | 3 | ABE-NRT1.1B-T2-#5 | ABE  | 800 |
| 2 | 4 | ABE-NRT1.1B-T2-#5 | ABE  | 774 |
| 2 | 0 | ABE-sgRNA-#1      | ABE  | 319 |
| 2 | 1 | ABE-sgRNA-#1      | ABE  | 310 |
| 2 | 2 | ABE-sgRNA-#1      | ABE  | 316 |
| 2 | 3 | ABE-sgRNA-#1      | ABE  | 422 |
| 2 | 4 | ABE-sgRNA-#1      | ABE  | 385 |
| 2 | 0 | ABE-sgRNA-#2      | ABE  | 418 |
| 2 | 1 | ABE-sgRNA-#2      | ABE  | 416 |
| 2 | 2 | ABE-sgRNA-#2      | ABE  | 405 |
| 2 | 3 | ABE-sgRNA-#2      | ABE  | 493 |
| 2 | 4 | ABE-sgRNA-#2      | ABE  | 481 |
| 2 | 0 | ABE-sgRNA-#3      | ABE  | 411 |
| 2 | 1 | ABE-sgRNA-#3      | ABE  | 412 |
| 2 | 2 | ABE-sgRNA-#3      | ABE  | 414 |
| 2 | 3 | ABE-sgRNA-#3      | ABE  | 521 |
| 2 | 4 | ABE-sgRNA-#3      | ABE  | 506 |
| 2 | 0 | ABE-sgRNA-#4      | ABE  | 305 |
| 2 | 1 | ABE-sgRNA-#4      | ABE  | 302 |
| 2 | 2 | ABE-sgRNA-#4      | ABE  | 307 |
| 2 | 3 | ABE-sgRNA-#4      | ABE  | 421 |
| 2 | 4 | ABE-sgRNA-#4      | ABE  | 389 |
| 2 | 0 | RGN-#1            | Agro | 505 |
| 2 | 1 | RGN-#1            | Agro | 496 |
| 2 | 2 | RGN-#1            | Agro | 512 |
| 2 | 3 | RGN-#1            | Agro | 626 |
| 2 | 4 | RGN-#1            | Agro | 594 |
| 2 | 0 | RGN-#2            | Agro | 460 |
| 2 | 1 | RGN-#2            | Agro | 451 |

|   |   |               |      |     |
|---|---|---------------|------|-----|
| 2 | 2 | RGN-#2        | Agro | 468 |
| 2 | 3 | RGN-#2        | Agro | 587 |
| 2 | 4 | RGN-#2        | Agro | 568 |
| 2 | 0 | RGN-#3        | Agro | 280 |
| 2 | 1 | RGN-#3        | Agro | 281 |
| 2 | 2 | RGN-#3        | Agro | 281 |
| 2 | 3 | RGN-#3        | Agro | 405 |
| 2 | 4 | RGN-#3        | Agro | 368 |
| 2 | 0 | RGN-#4        | Agro | 395 |
| 2 | 1 | RGN-#4        | Agro | 387 |
| 2 | 2 | RGN-#4        | Agro | 385 |
| 2 | 3 | RGN-#4        | Agro | 469 |
| 2 | 4 | RGN-#4        | Agro | 468 |
| 2 | 0 | RGN-#5        | Agro | 269 |
| 2 | 1 | RGN-#5        | Agro | 272 |
| 2 | 2 | RGN-#5        | Agro | 268 |
| 2 | 3 | RGN-#5        | Agro | 327 |
| 2 | 4 | RGN-#5        | Agro | 314 |
| 2 | 0 | RGN-#6        | Agro | 346 |
| 2 | 1 | RGN-#6        | Agro | 341 |
| 2 | 2 | RGN-#6        | Agro | 349 |
| 2 | 3 | RGN-#6        | Agro | 405 |
| 2 | 4 | RGN-#6        | Agro | 381 |
| 2 | 0 | RGN-#7        | Agro | 379 |
| 2 | 1 | RGN-#7        | Agro | 385 |
| 2 | 2 | RGN-#7        | Agro | 382 |
| 2 | 3 | RGN-#7        | Agro | 444 |
| 2 | 4 | RGN-#7        | Agro | 391 |
| 2 | 0 | RGN-#8        | Agro | 499 |
| 2 | 1 | RGN-#8        | Agro | 513 |
| 2 | 2 | RGN-#8        | Agro | 485 |
| 2 | 3 | RGN-#8        | Agro | 570 |
| 2 | 4 | RGN-#8        | Agro | 524 |
| 2 | 0 | RGN-#9        | Agro | 343 |
| 2 | 1 | RGN-#9        | Agro | 353 |
| 2 | 2 | RGN-#9        | Agro | 338 |
| 2 | 3 | RGN-#9        | Agro | 391 |
| 2 | 4 | RGN-#9        | Agro | 361 |
| 2 | 0 | CBE-ACC-T1-#1 | CBE  | 503 |
| 2 | 1 | CBE-ACC-T1-#1 | CBE  | 507 |
| 2 | 2 | CBE-ACC-T1-#1 | CBE  | 502 |
| 2 | 3 | CBE-ACC-T1-#1 | CBE  | 570 |
| 2 | 4 | CBE-ACC-T1-#1 | CBE  | 544 |

|   |   |               |     |     |
|---|---|---------------|-----|-----|
| 2 | 0 | CBE-ACC-T1-#2 | CBE | 679 |
| 2 | 1 | CBE-ACC-T1-#2 | CBE | 687 |
| 2 | 2 | CBE-ACC-T1-#2 | CBE | 674 |
| 2 | 3 | CBE-ACC-T1-#2 | CBE | 757 |
| 2 | 4 | CBE-ACC-T1-#2 | CBE | 721 |
| 2 | 0 | CBE-ACC-T2-#1 | CBE | 662 |
| 2 | 1 | CBE-ACC-T2-#1 | CBE | 653 |
| 2 | 2 | CBE-ACC-T2-#1 | CBE | 659 |
| 2 | 3 | CBE-ACC-T2-#1 | CBE | 714 |
| 2 | 4 | CBE-ACC-T2-#1 | CBE | 692 |
| 2 | 0 | CBE-ACC-T2-#2 | CBE | 593 |
| 2 | 1 | CBE-ACC-T2-#2 | CBE | 594 |
| 2 | 2 | CBE-ACC-T2-#2 | CBE | 592 |
| 2 | 3 | CBE-ACC-T2-#2 | CBE | 667 |
| 2 | 4 | CBE-ACC-T2-#2 | CBE | 637 |
| 2 | 0 | CBE-ACC-T2-#3 | CBE | 652 |
| 2 | 1 | CBE-ACC-T2-#3 | CBE | 638 |
| 2 | 2 | CBE-ACC-T2-#3 | CBE | 643 |
| 2 | 3 | CBE-ACC-T2-#3 | CBE | 710 |
| 2 | 4 | CBE-ACC-T2-#3 | CBE | 676 |
| 2 | 0 | CBE-ACC-T3-#1 | CBE | 462 |
| 2 | 1 | CBE-ACC-T3-#1 | CBE | 459 |
| 2 | 2 | CBE-ACC-T3-#1 | CBE | 456 |
| 2 | 3 | CBE-ACC-T3-#1 | CBE | 580 |
| 2 | 4 | CBE-ACC-T3-#1 | CBE | 544 |
| 2 | 0 | CBE-ACC-T3-#2 | CBE | 519 |
| 2 | 1 | CBE-ACC-T3-#2 | CBE | 485 |
| 2 | 2 | CBE-ACC-T3-#2 | CBE | 523 |
| 2 | 3 | CBE-ACC-T3-#2 | CBE | 617 |
| 2 | 4 | CBE-ACC-T3-#2 | CBE | 606 |
| 2 | 0 | CBE-ACC-T3-#3 | CBE | 348 |
| 2 | 1 | CBE-ACC-T3-#3 | CBE | 342 |
| 2 | 2 | CBE-ACC-T3-#3 | CBE | 344 |
| 2 | 3 | CBE-ACC-T3-#3 | CBE | 441 |
| 2 | 4 | CBE-ACC-T3-#3 | CBE | 431 |
| 2 | 0 | CBE-ALS-T1-#1 | CBE | 508 |
| 2 | 1 | CBE-ALS-T1-#1 | CBE | 511 |
| 2 | 2 | CBE-ALS-T1-#1 | CBE | 510 |
| 2 | 3 | CBE-ALS-T1-#1 | CBE | 634 |
| 2 | 4 | CBE-ALS-T1-#1 | CBE | 618 |
| 2 | 0 | CBE-ALS-T1-#2 | CBE | 538 |
| 2 | 1 | CBE-ALS-T1-#2 | CBE | 544 |
| 2 | 2 | CBE-ALS-T1-#2 | CBE | 540 |

|   |   |                   |     |      |
|---|---|-------------------|-----|------|
| 2 | 3 | CBE-ALS-T1-#2     | CBE | 672  |
| 2 | 4 | CBE-ALS-T1-#2     | CBE | 633  |
| 2 | 0 | CBE-ALS-T1-#3     | CBE | 429  |
| 2 | 1 | CBE-ALS-T1-#3     | CBE | 427  |
| 2 | 2 | CBE-ALS-T1-#3     | CBE | 433  |
| 2 | 3 | CBE-ALS-T1-#3     | CBE | 559  |
| 2 | 4 | CBE-ALS-T1-#3     | CBE | 535  |
| 2 | 0 | CBE-NRT1.1B-T1-#1 | CBE | 402  |
| 2 | 1 | CBE-NRT1.1B-T1-#1 | CBE | 409  |
| 2 | 2 | CBE-NRT1.1B-T1-#1 | CBE | 405  |
| 2 | 3 | CBE-NRT1.1B-T1-#1 | CBE | 524  |
| 2 | 4 | CBE-NRT1.1B-T1-#1 | CBE | 500  |
| 2 | 0 | CBE-NRT1.1B-T1-#2 | CBE | 497  |
| 2 | 1 | CBE-NRT1.1B-T1-#2 | CBE | 500  |
| 2 | 2 | CBE-NRT1.1B-T1-#2 | CBE | 498  |
| 2 | 3 | CBE-NRT1.1B-T1-#2 | CBE | 617  |
| 2 | 4 | CBE-NRT1.1B-T1-#2 | CBE | 597  |
| 2 | 0 | CBE-NRT1.1B-T1-#3 | CBE | 751  |
| 2 | 1 | CBE-NRT1.1B-T1-#3 | CBE | 747  |
| 2 | 2 | CBE-NRT1.1B-T1-#3 | CBE | 753  |
| 2 | 3 | CBE-NRT1.1B-T1-#3 | CBE | 862  |
| 2 | 4 | CBE-NRT1.1B-T1-#3 | CBE | 831  |
| 2 | 0 | CBE-sgRNA-#1      | CBE | 985  |
| 2 | 1 | CBE-sgRNA-#1      | CBE | 970  |
| 2 | 2 | CBE-sgRNA-#1      | CBE | 986  |
| 2 | 3 | CBE-sgRNA-#1      | CBE | 1096 |
| 2 | 4 | CBE-sgRNA-#1      | CBE | 1074 |
| 2 | 0 | CBE-sgRNA-#2      | CBE | 539  |
| 2 | 1 | CBE-sgRNA-#2      | CBE | 547  |
| 2 | 2 | CBE-sgRNA-#2      | CBE | 551  |
| 2 | 3 | CBE-sgRNA-#2      | CBE | 630  |
| 2 | 4 | CBE-sgRNA-#2      | CBE | 590  |
| 2 | 0 | CBE-sgRNA-#3      | CBE | 482  |
| 2 | 1 | CBE-sgRNA-#3      | CBE | 489  |
| 2 | 2 | CBE-sgRNA-#3      | CBE | 487  |
| 2 | 3 | CBE-sgRNA-#3      | CBE | 557  |
| 2 | 4 | CBE-sgRNA-#3      | CBE | 529  |
| 2 | 0 | CBE-sgRNA-#4      | CBE | 374  |
| 2 | 1 | CBE-sgRNA-#4      | CBE | 378  |
| 2 | 2 | CBE-sgRNA-#4      | CBE | 370  |
| 2 | 3 | CBE-sgRNA-#4      | CBE | 436  |
| 2 | 4 | CBE-sgRNA-#4      | CBE | 420  |
| 2 | 0 | CBE-sgRNA-#5      | CBE | 551  |

|   |   |                   |        |     |
|---|---|-------------------|--------|-----|
| 2 | 1 | CBE-sgRNA-#5      | CBE    | 562 |
| 2 | 2 | CBE-sgRNA-#5      | CBE    | 559 |
| 2 | 3 | CBE-sgRNA-#5      | CBE    | 620 |
| 2 | 4 | CBE-sgRNA-#5      | CBE    | 580 |
| 2 | 0 | CBE-Wxb-T1-#1     | CBE    | 371 |
| 2 | 1 | CBE-Wxb-T1-#1     | CBE    | 375 |
| 2 | 2 | CBE-Wxb-T1-#1     | CBE    | 367 |
| 2 | 3 | CBE-Wxb-T1-#1     | CBE    | 427 |
| 2 | 4 | CBE-Wxb-T1-#1     | CBE    | 410 |
| 2 | 0 | CBE-Wxb-T1-#2     | CBE    | 684 |
| 2 | 1 | CBE-Wxb-T1-#2     | CBE    | 693 |
| 2 | 2 | CBE-Wxb-T1-#2     | CBE    | 676 |
| 2 | 3 | CBE-Wxb-T1-#2     | CBE    | 746 |
| 2 | 4 | CBE-Wxb-T1-#2     | CBE    | 710 |
| 2 | 0 | CBE-Wxb-T1-#3     | CBE    | 390 |
| 2 | 1 | CBE-Wxb-T1-#3     | CBE    | 381 |
| 2 | 2 | CBE-Wxb-T1-#3     | CBE    | 391 |
| 2 | 3 | CBE-Wxb-T1-#3     | CBE    | 454 |
| 2 | 4 | CBE-Wxb-T1-#3     | CBE    | 419 |
| 2 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 586 |
| 2 | 1 | HF1-CBE-ACC-T3-#1 | HF-CBE | 583 |
| 2 | 2 | HF1-CBE-ACC-T3-#1 | HF-CBE | 581 |
| 2 | 3 | HF1-CBE-ACC-T3-#1 | HF-CBE | 691 |
| 2 | 4 | HF1-CBE-ACC-T3-#1 | HF-CBE | 658 |
| 2 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 564 |
| 2 | 1 | HF1-CBE-ACC-T3-#2 | HF-CBE | 560 |
| 2 | 2 | HF1-CBE-ACC-T3-#2 | HF-CBE | 569 |
| 2 | 3 | HF1-CBE-ACC-T3-#2 | HF-CBE | 696 |
| 2 | 4 | HF1-CBE-ACC-T3-#2 | HF-CBE | 656 |
| 2 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 843 |
| 2 | 1 | HF1-CBE-ACC-T3-#3 | HF-CBE | 837 |
| 2 | 2 | HF1-CBE-ACC-T3-#3 | HF-CBE | 843 |
| 2 | 3 | HF1-CBE-ACC-T3-#3 | HF-CBE | 961 |
| 2 | 4 | HF1-CBE-ACC-T3-#3 | HF-CBE | 923 |
| 2 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 473 |
| 2 | 1 | HF1-CBE-ALS-T1-#1 | HF-CBE | 472 |
| 2 | 2 | HF1-CBE-ALS-T1-#1 | HF-CBE | 479 |
| 2 | 3 | HF1-CBE-ALS-T1-#1 | HF-CBE | 602 |
| 2 | 4 | HF1-CBE-ALS-T1-#1 | HF-CBE | 573 |
| 2 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 517 |
| 2 | 1 | HF1-CBE-ALS-T1-#2 | HF-CBE | 533 |
| 2 | 2 | HF1-CBE-ALS-T1-#2 | HF-CBE | 521 |
| 2 | 3 | HF1-CBE-ALS-T1-#2 | HF-CBE | 648 |

|   |   |                   |        |      |
|---|---|-------------------|--------|------|
| 2 | 4 | HF1-CBE-ALS-T1-#2 | HF-CBE | 613  |
| 2 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 684  |
| 2 | 1 | HF1-CBE-ALS-T1-#3 | HF-CBE | 678  |
| 2 | 2 | HF1-CBE-ALS-T1-#3 | HF-CBE | 686  |
| 2 | 3 | HF1-CBE-ALS-T1-#3 | HF-CBE | 803  |
| 2 | 4 | HF1-CBE-ALS-T1-#3 | HF-CBE | 775  |
| 2 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 870  |
| 2 | 1 | HF1-CBE-sgRNA-#1  | HF-CBE | 866  |
| 2 | 2 | HF1-CBE-sgRNA-#1  | HF-CBE | 875  |
| 2 | 3 | HF1-CBE-sgRNA-#1  | HF-CBE | 974  |
| 2 | 4 | HF1-CBE-sgRNA-#1  | HF-CBE | 957  |
| 2 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 650  |
| 2 | 1 | HF1-CBE-sgRNA-#2  | HF-CBE | 644  |
| 2 | 2 | HF1-CBE-sgRNA-#2  | HF-CBE | 647  |
| 2 | 3 | HF1-CBE-sgRNA-#2  | HF-CBE | 774  |
| 2 | 4 | HF1-CBE-sgRNA-#2  | HF-CBE | 752  |
| 2 | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 349  |
| 2 | 1 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 344  |
| 2 | 2 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 347  |
| 2 | 3 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 467  |
| 2 | 4 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 439  |
| 2 | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 822  |
| 2 | 1 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 821  |
| 2 | 2 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 824  |
| 2 | 3 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 915  |
| 2 | 4 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 913  |
| 2 | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 946  |
| 2 | 1 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 947  |
| 2 | 2 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 949  |
| 2 | 3 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 1075 |
| 2 | 4 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 1042 |
| 4 | 0 | ABE-ACC-T4-#1     | ABE    | 366  |
| 4 | 1 | ABE-ACC-T4-#1     | ABE    | 366  |
| 4 | 2 | ABE-ACC-T4-#1     | ABE    | 364  |
| 4 | 3 | ABE-ACC-T4-#1     | ABE    | 373  |
| 4 | 4 | ABE-ACC-T4-#1     | ABE    | 364  |
| 4 | 0 | ABE-ACC-T4-#2     | ABE    | 281  |
| 4 | 1 | ABE-ACC-T4-#2     | ABE    | 273  |
| 4 | 2 | ABE-ACC-T4-#2     | ABE    | 268  |
| 4 | 3 | ABE-ACC-T4-#2     | ABE    | 274  |
| 4 | 4 | ABE-ACC-T4-#2     | ABE    | 268  |
| 4 | 0 | ABE-ACC-T4-#3     | ABE    | 388  |
| 4 | 1 | ABE-ACC-T4-#3     | ABE    | 392  |

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|---|---|-----------------|-----|-----|
| 4 | 2 | ABE-ACC-T4-#3   | ABE | 390 |
| 4 | 3 | ABE-ACC-T4-#3   | ABE | 389 |
| 4 | 4 | ABE-ACC-T4-#3   | ABE | 393 |
| 4 | 0 | ABE-ALS-T2-#1   | ABE | 315 |
| 4 | 1 | ABE-ALS-T2-#1   | ABE | 315 |
| 4 | 2 | ABE-ALS-T2-#1   | ABE | 310 |
| 4 | 3 | ABE-ALS-T2-#1   | ABE | 299 |
| 4 | 4 | ABE-ALS-T2-#1   | ABE | 298 |
| 4 | 0 | ABE-ALS-T2-#2   | ABE | 286 |
| 4 | 1 | ABE-ALS-T2-#2   | ABE | 278 |
| 4 | 2 | ABE-ALS-T2-#2   | ABE | 279 |
| 4 | 3 | ABE-ALS-T2-#2   | ABE | 267 |
| 4 | 4 | ABE-ALS-T2-#2   | ABE | 264 |
| 4 | 0 | ABE-CDC48-T1-#1 | ABE | 311 |
| 4 | 1 | ABE-CDC48-T1-#1 | ABE | 306 |
| 4 | 2 | ABE-CDC48-T1-#1 | ABE | 298 |
| 4 | 3 | ABE-CDC48-T1-#1 | ABE | 303 |
| 4 | 4 | ABE-CDC48-T1-#1 | ABE | 302 |
| 4 | 0 | ABE-CDC48-T1-#2 | ABE | 347 |
| 4 | 1 | ABE-CDC48-T1-#2 | ABE | 347 |
| 4 | 2 | ABE-CDC48-T1-#2 | ABE | 347 |
| 4 | 3 | ABE-CDC48-T1-#2 | ABE | 348 |
| 4 | 4 | ABE-CDC48-T1-#2 | ABE | 345 |
| 4 | 0 | ABE-CDC48-T1-#3 | ABE | 294 |
| 4 | 1 | ABE-CDC48-T1-#3 | ABE | 289 |
| 4 | 2 | ABE-CDC48-T1-#3 | ABE | 286 |
| 4 | 3 | ABE-CDC48-T1-#3 | ABE | 302 |
| 4 | 4 | ABE-CDC48-T1-#3 | ABE | 286 |
| 4 | 0 | ABE-CDC48-T1-#4 | ABE | 280 |
| 4 | 1 | ABE-CDC48-T1-#4 | ABE | 274 |
| 4 | 2 | ABE-CDC48-T1-#4 | ABE | 272 |
| 4 | 3 | ABE-CDC48-T1-#4 | ABE | 272 |
| 4 | 4 | ABE-CDC48-T1-#4 | ABE | 273 |
| 4 | 0 | ABE-CDC48-T1-#5 | ABE | 407 |
| 4 | 1 | ABE-CDC48-T1-#5 | ABE | 403 |
| 4 | 2 | ABE-CDC48-T1-#5 | ABE | 405 |
| 4 | 3 | ABE-CDC48-T1-#5 | ABE | 404 |
| 4 | 4 | ABE-CDC48-T1-#5 | ABE | 401 |
| 4 | 0 | ABE-CDC48-T1-#6 | ABE | 328 |
| 4 | 1 | ABE-CDC48-T1-#6 | ABE | 325 |
| 4 | 2 | ABE-CDC48-T1-#6 | ABE | 331 |
| 4 | 3 | ABE-CDC48-T1-#6 | ABE | 334 |
| 4 | 4 | ABE-CDC48-T1-#6 | ABE | 331 |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 4 | 0 | ABE-DEP1-T1-#1    | ABE | 357 |
| 4 | 1 | ABE-DEP1-T1-#1    | ABE | 349 |
| 4 | 2 | ABE-DEP1-T1-#1    | ABE | 350 |
| 4 | 3 | ABE-DEP1-T1-#1    | ABE | 346 |
| 4 | 4 | ABE-DEP1-T1-#1    | ABE | 350 |
| 4 | 0 | ABE-DEP1-T1-#2    | ABE | 274 |
| 4 | 1 | ABE-DEP1-T1-#2    | ABE | 260 |
| 4 | 2 | ABE-DEP1-T1-#2    | ABE | 268 |
| 4 | 3 | ABE-DEP1-T1-#2    | ABE | 273 |
| 4 | 4 | ABE-DEP1-T1-#2    | ABE | 270 |
| 4 | 0 | ABE-DEP1-T1-#3    | ABE | 319 |
| 4 | 1 | ABE-DEP1-T1-#3    | ABE | 320 |
| 4 | 2 | ABE-DEP1-T1-#3    | ABE | 317 |
| 4 | 3 | ABE-DEP1-T1-#3    | ABE | 315 |
| 4 | 4 | ABE-DEP1-T1-#3    | ABE | 319 |
| 4 | 0 | ABE-NRT1.1B-T2-#1 | ABE | 251 |
| 4 | 1 | ABE-NRT1.1B-T2-#1 | ABE | 249 |
| 4 | 2 | ABE-NRT1.1B-T2-#1 | ABE | 251 |
| 4 | 3 | ABE-NRT1.1B-T2-#1 | ABE | 241 |
| 4 | 4 | ABE-NRT1.1B-T2-#1 | ABE | 240 |
| 4 | 0 | ABE-NRT1.1B-T2-#2 | ABE | 278 |
| 4 | 1 | ABE-NRT1.1B-T2-#2 | ABE | 264 |
| 4 | 2 | ABE-NRT1.1B-T2-#2 | ABE | 274 |
| 4 | 3 | ABE-NRT1.1B-T2-#2 | ABE | 280 |
| 4 | 4 | ABE-NRT1.1B-T2-#2 | ABE | 270 |
| 4 | 0 | ABE-NRT1.1B-T2-#3 | ABE | 186 |
| 4 | 1 | ABE-NRT1.1B-T2-#3 | ABE | 190 |
| 4 | 2 | ABE-NRT1.1B-T2-#3 | ABE | 187 |
| 4 | 3 | ABE-NRT1.1B-T2-#3 | ABE | 188 |
| 4 | 4 | ABE-NRT1.1B-T2-#3 | ABE | 192 |
| 4 | 0 | ABE-NRT1.1B-T2-#4 | ABE | 581 |
| 4 | 1 | ABE-NRT1.1B-T2-#4 | ABE | 570 |
| 4 | 2 | ABE-NRT1.1B-T2-#4 | ABE | 571 |
| 4 | 3 | ABE-NRT1.1B-T2-#4 | ABE | 573 |
| 4 | 4 | ABE-NRT1.1B-T2-#4 | ABE | 571 |
| 4 | 0 | ABE-NRT1.1B-T2-#5 | ABE | 680 |
| 4 | 1 | ABE-NRT1.1B-T2-#5 | ABE | 681 |
| 4 | 2 | ABE-NRT1.1B-T2-#5 | ABE | 679 |
| 4 | 3 | ABE-NRT1.1B-T2-#5 | ABE | 679 |
| 4 | 4 | ABE-NRT1.1B-T2-#5 | ABE | 683 |
| 4 | 0 | ABE-sgRNA-#1      | ABE | 300 |
| 4 | 1 | ABE-sgRNA-#1      | ABE | 300 |
| 4 | 2 | ABE-sgRNA-#1      | ABE | 300 |

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| 4 | 3 | ABE-sgRNA-#1 | ABE  | 295 |
| 4 | 4 | ABE-sgRNA-#1 | ABE  | 294 |
| 4 | 0 | ABE-sgRNA-#2 | ABE  | 391 |
| 4 | 1 | ABE-sgRNA-#2 | ABE  | 390 |
| 4 | 2 | ABE-sgRNA-#2 | ABE  | 386 |
| 4 | 3 | ABE-sgRNA-#2 | ABE  | 392 |
| 4 | 4 | ABE-sgRNA-#2 | ABE  | 389 |
| 4 | 0 | ABE-sgRNA-#3 | ABE  | 396 |
| 4 | 1 | ABE-sgRNA-#3 | ABE  | 393 |
| 4 | 2 | ABE-sgRNA-#3 | ABE  | 383 |
| 4 | 3 | ABE-sgRNA-#3 | ABE  | 382 |
| 4 | 4 | ABE-sgRNA-#3 | ABE  | 393 |
| 4 | 0 | ABE-sgRNA-#4 | ABE  | 289 |
| 4 | 1 | ABE-sgRNA-#4 | ABE  | 289 |
| 4 | 2 | ABE-sgRNA-#4 | ABE  | 231 |
| 4 | 3 | ABE-sgRNA-#4 | ABE  | 226 |
| 4 | 4 | ABE-sgRNA-#4 | ABE  | 286 |
| 4 | 0 | RGN-#1       | Agro | 489 |
| 4 | 1 | RGN-#1       | Agro | 485 |
| 4 | 2 | RGN-#1       | Agro | 483 |
| 4 | 3 | RGN-#1       | Agro | 484 |
| 4 | 4 | RGN-#1       | Agro | 488 |
| 4 | 0 | RGN-#2       | Agro | 445 |
| 4 | 1 | RGN-#2       | Agro | 438 |
| 4 | 2 | RGN-#2       | Agro | 442 |
| 4 | 3 | RGN-#2       | Agro | 438 |
| 4 | 4 | RGN-#2       | Agro | 443 |
| 4 | 0 | RGN-#3       | Agro | 263 |
| 4 | 1 | RGN-#3       | Agro | 247 |
| 4 | 2 | RGN-#3       | Agro | 256 |
| 4 | 3 | RGN-#3       | Agro | 263 |
| 4 | 4 | RGN-#3       | Agro | 259 |
| 4 | 0 | RGN-#4       | Agro | 374 |
| 4 | 1 | RGN-#4       | Agro | 373 |
| 4 | 2 | RGN-#4       | Agro | 371 |
| 4 | 3 | RGN-#4       | Agro | 371 |
| 4 | 4 | RGN-#4       | Agro | 369 |
| 4 | 0 | RGN-#5       | Agro | 252 |
| 4 | 1 | RGN-#5       | Agro | 252 |
| 4 | 2 | RGN-#5       | Agro | 244 |
| 4 | 3 | RGN-#5       | Agro | 245 |
| 4 | 4 | RGN-#5       | Agro | 249 |
| 4 | 0 | RGN-#6       | Agro | 327 |

|   |   |               |      |     |
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| 4 | 1 | RGN-#6        | Agro | 311 |
| 4 | 2 | RGN-#6        | Agro | 309 |
| 4 | 3 | RGN-#6        | Agro | 314 |
| 4 | 4 | RGN-#6        | Agro | 302 |
| 4 | 0 | RGN-#7        | Agro | 326 |
| 4 | 1 | RGN-#7        | Agro | 309 |
| 4 | 2 | RGN-#7        | Agro | 309 |
| 4 | 3 | RGN-#7        | Agro | 331 |
| 4 | 4 | RGN-#7        | Agro | 309 |
| 4 | 0 | RGN-#8        | Agro | 449 |
| 4 | 1 | RGN-#8        | Agro | 433 |
| 4 | 2 | RGN-#8        | Agro | 440 |
| 4 | 3 | RGN-#8        | Agro | 447 |
| 4 | 4 | RGN-#8        | Agro | 437 |
| 4 | 0 | RGN-#9        | Agro | 292 |
| 4 | 1 | RGN-#9        | Agro | 283 |
| 4 | 2 | RGN-#9        | Agro | 287 |
| 4 | 3 | RGN-#9        | Agro | 302 |
| 4 | 4 | RGN-#9        | Agro | 286 |
| 4 | 0 | CBE-ACC-T1-#1 | CBE  | 475 |
| 4 | 1 | CBE-ACC-T1-#1 | CBE  | 466 |
| 4 | 2 | CBE-ACC-T1-#1 | CBE  | 464 |
| 4 | 3 | CBE-ACC-T1-#1 | CBE  | 476 |
| 4 | 4 | CBE-ACC-T1-#1 | CBE  | 469 |
| 4 | 0 | CBE-ACC-T1-#2 | CBE  | 653 |
| 4 | 1 | CBE-ACC-T1-#2 | CBE  | 656 |
| 4 | 2 | CBE-ACC-T1-#2 | CBE  | 650 |
| 4 | 3 | CBE-ACC-T1-#2 | CBE  | 656 |
| 4 | 4 | CBE-ACC-T1-#2 | CBE  | 653 |
| 4 | 0 | CBE-ACC-T2-#1 | CBE  | 625 |
| 4 | 1 | CBE-ACC-T2-#1 | CBE  | 615 |
| 4 | 2 | CBE-ACC-T2-#1 | CBE  | 616 |
| 4 | 3 | CBE-ACC-T2-#1 | CBE  | 622 |
| 4 | 4 | CBE-ACC-T2-#1 | CBE  | 613 |
| 4 | 0 | CBE-ACC-T2-#2 | CBE  | 570 |
| 4 | 1 | CBE-ACC-T2-#2 | CBE  | 565 |
| 4 | 2 | CBE-ACC-T2-#2 | CBE  | 564 |
| 4 | 3 | CBE-ACC-T2-#2 | CBE  | 571 |
| 4 | 4 | CBE-ACC-T2-#2 | CBE  | 567 |
| 4 | 0 | CBE-ACC-T2-#3 | CBE  | 620 |
| 4 | 1 | CBE-ACC-T2-#3 | CBE  | 606 |
| 4 | 2 | CBE-ACC-T2-#3 | CBE  | 610 |
| 4 | 3 | CBE-ACC-T2-#3 | CBE  | 615 |

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| 4 | 4 | CBE-ACC-T2-#3     | CBE | 605 |
| 4 | 0 | CBE-ACC-T3-#1     | CBE | 442 |
| 4 | 1 | CBE-ACC-T3-#1     | CBE | 437 |
| 4 | 2 | CBE-ACC-T3-#1     | CBE | 442 |
| 4 | 3 | CBE-ACC-T3-#1     | CBE | 444 |
| 4 | 4 | CBE-ACC-T3-#1     | CBE | 441 |
| 4 | 0 | CBE-ACC-T3-#2     | CBE | 505 |
| 4 | 1 | CBE-ACC-T3-#2     | CBE | 504 |
| 4 | 2 | CBE-ACC-T3-#2     | CBE | 498 |
| 4 | 3 | CBE-ACC-T3-#2     | CBE | 476 |
| 4 | 4 | CBE-ACC-T3-#2     | CBE | 474 |
| 4 | 0 | CBE-ACC-T3-#3     | CBE | 321 |
| 4 | 1 | CBE-ACC-T3-#3     | CBE | 315 |
| 4 | 2 | CBE-ACC-T3-#3     | CBE | 320 |
| 4 | 3 | CBE-ACC-T3-#3     | CBE | 322 |
| 4 | 4 | CBE-ACC-T3-#3     | CBE | 320 |
| 4 | 0 | CBE-ALS-T1-#1     | CBE | 495 |
| 4 | 1 | CBE-ALS-T1-#1     | CBE | 503 |
| 4 | 2 | CBE-ALS-T1-#1     | CBE | 496 |
| 4 | 3 | CBE-ALS-T1-#1     | CBE | 492 |
| 4 | 4 | CBE-ALS-T1-#1     | CBE | 497 |
| 4 | 0 | CBE-ALS-T1-#2     | CBE | 525 |
| 4 | 1 | CBE-ALS-T1-#2     | CBE | 534 |
| 4 | 2 | CBE-ALS-T1-#2     | CBE | 528 |
| 4 | 3 | CBE-ALS-T1-#2     | CBE | 531 |
| 4 | 4 | CBE-ALS-T1-#2     | CBE | 529 |
| 4 | 0 | CBE-ALS-T1-#3     | CBE | 410 |
| 4 | 1 | CBE-ALS-T1-#3     | CBE | 406 |
| 4 | 2 | CBE-ALS-T1-#3     | CBE | 405 |
| 4 | 3 | CBE-ALS-T1-#3     | CBE | 409 |
| 4 | 4 | CBE-ALS-T1-#3     | CBE | 403 |
| 4 | 0 | CBE-NRT1.1B-T1-#1 | CBE | 385 |
| 4 | 1 | CBE-NRT1.1B-T1-#1 | CBE | 392 |
| 4 | 2 | CBE-NRT1.1B-T1-#1 | CBE | 389 |
| 4 | 3 | CBE-NRT1.1B-T1-#1 | CBE | 390 |
| 4 | 4 | CBE-NRT1.1B-T1-#1 | CBE | 390 |
| 4 | 0 | CBE-NRT1.1B-T1-#2 | CBE | 484 |
| 4 | 1 | CBE-NRT1.1B-T1-#2 | CBE | 486 |
| 4 | 2 | CBE-NRT1.1B-T1-#2 | CBE | 485 |
| 4 | 3 | CBE-NRT1.1B-T1-#2 | CBE | 484 |
| 4 | 4 | CBE-NRT1.1B-T1-#2 | CBE | 485 |
| 4 | 0 | CBE-NRT1.1B-T1-#3 | CBE | 723 |
| 4 | 1 | CBE-NRT1.1B-T1-#3 | CBE | 725 |

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| 4 | 2 | CBE-NRT1.1B-T1-#3 | CBE | 721 |
| 4 | 3 | CBE-NRT1.1B-T1-#3 | CBE | 731 |
| 4 | 4 | CBE-NRT1.1B-T1-#3 | CBE | 717 |
| 4 | 0 | CBE-sgRNA-#1      | CBE | 968 |
| 4 | 1 | CBE-sgRNA-#1      | CBE | 958 |
| 4 | 2 | CBE-sgRNA-#1      | CBE | 961 |
| 4 | 3 | CBE-sgRNA-#1      | CBE | 958 |
| 4 | 4 | CBE-sgRNA-#1      | CBE | 961 |
| 4 | 0 | CBE-sgRNA-#2      | CBE | 521 |
| 4 | 1 | CBE-sgRNA-#2      | CBE | 517 |
| 4 | 2 | CBE-sgRNA-#2      | CBE | 515 |
| 4 | 3 | CBE-sgRNA-#2      | CBE | 520 |
| 4 | 4 | CBE-sgRNA-#2      | CBE | 517 |
| 4 | 0 | CBE-sgRNA-#3      | CBE | 459 |
| 4 | 1 | CBE-sgRNA-#3      | CBE | 446 |
| 4 | 2 | CBE-sgRNA-#3      | CBE | 445 |
| 4 | 3 | CBE-sgRNA-#3      | CBE | 452 |
| 4 | 4 | CBE-sgRNA-#3      | CBE | 446 |
| 4 | 0 | CBE-sgRNA-#4      | CBE | 352 |
| 4 | 1 | CBE-sgRNA-#4      | CBE | 346 |
| 4 | 2 | CBE-sgRNA-#4      | CBE | 348 |
| 4 | 3 | CBE-sgRNA-#4      | CBE | 353 |
| 4 | 4 | CBE-sgRNA-#4      | CBE | 346 |
| 4 | 0 | CBE-sgRNA-#5      | CBE | 513 |
| 4 | 1 | CBE-sgRNA-#5      | CBE | 511 |
| 4 | 2 | CBE-sgRNA-#5      | CBE | 509 |
| 4 | 3 | CBE-sgRNA-#5      | CBE | 515 |
| 4 | 4 | CBE-sgRNA-#5      | CBE | 507 |
| 4 | 0 | CBE-Wxb-T1-#1     | CBE | 341 |
| 4 | 1 | CBE-Wxb-T1-#1     | CBE | 339 |
| 4 | 2 | CBE-Wxb-T1-#1     | CBE | 337 |
| 4 | 3 | CBE-Wxb-T1-#1     | CBE | 347 |
| 4 | 4 | CBE-Wxb-T1-#1     | CBE | 341 |
| 4 | 0 | CBE-Wxb-T1-#2     | CBE | 655 |
| 4 | 1 | CBE-Wxb-T1-#2     | CBE | 645 |
| 4 | 2 | CBE-Wxb-T1-#2     | CBE | 650 |
| 4 | 3 | CBE-Wxb-T1-#2     | CBE | 658 |
| 4 | 4 | CBE-Wxb-T1-#2     | CBE | 649 |
| 4 | 0 | CBE-Wxb-T1-#3     | CBE | 368 |
| 4 | 1 | CBE-Wxb-T1-#3     | CBE | 360 |
| 4 | 2 | CBE-Wxb-T1-#3     | CBE | 351 |
| 4 | 3 | CBE-Wxb-T1-#3     | CBE | 354 |
| 4 | 4 | CBE-Wxb-T1-#3     | CBE | 357 |

|   |   |                   |        |     |
|---|---|-------------------|--------|-----|
| 4 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 568 |
| 4 | 1 | HF1-CBE-ACC-T3-#1 | HF-CBE | 553 |
| 4 | 2 | HF1-CBE-ACC-T3-#1 | HF-CBE | 561 |
| 4 | 3 | HF1-CBE-ACC-T3-#1 | HF-CBE | 563 |
| 4 | 4 | HF1-CBE-ACC-T3-#1 | HF-CBE | 560 |
| 4 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 554 |
| 4 | 1 | HF1-CBE-ACC-T3-#2 | HF-CBE | 551 |
| 4 | 2 | HF1-CBE-ACC-T3-#2 | HF-CBE | 543 |
| 4 | 3 | HF1-CBE-ACC-T3-#2 | HF-CBE | 540 |
| 4 | 4 | HF1-CBE-ACC-T3-#2 | HF-CBE | 544 |
| 4 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 813 |
| 4 | 1 | HF1-CBE-ACC-T3-#3 | HF-CBE | 817 |
| 4 | 2 | HF1-CBE-ACC-T3-#3 | HF-CBE | 808 |
| 4 | 3 | HF1-CBE-ACC-T3-#3 | HF-CBE | 819 |
| 4 | 4 | HF1-CBE-ACC-T3-#3 | HF-CBE | 810 |
| 4 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 460 |
| 4 | 1 | HF1-CBE-ALS-T1-#1 | HF-CBE | 455 |
| 4 | 2 | HF1-CBE-ALS-T1-#1 | HF-CBE | 455 |
| 4 | 3 | HF1-CBE-ALS-T1-#1 | HF-CBE | 458 |
| 4 | 4 | HF1-CBE-ALS-T1-#1 | HF-CBE | 456 |
| 4 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 505 |
| 4 | 1 | HF1-CBE-ALS-T1-#2 | HF-CBE | 507 |
| 4 | 2 | HF1-CBE-ALS-T1-#2 | HF-CBE | 511 |
| 4 | 3 | HF1-CBE-ALS-T1-#2 | HF-CBE | 513 |
| 4 | 4 | HF1-CBE-ALS-T1-#2 | HF-CBE | 511 |
| 4 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 671 |
| 4 | 1 | HF1-CBE-ALS-T1-#3 | HF-CBE | 674 |
| 4 | 2 | HF1-CBE-ALS-T1-#3 | HF-CBE | 666 |
| 4 | 3 | HF1-CBE-ALS-T1-#3 | HF-CBE | 664 |
| 4 | 4 | HF1-CBE-ALS-T1-#3 | HF-CBE | 669 |
| 4 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 852 |
| 4 | 1 | HF1-CBE-sgRNA-#1  | HF-CBE | 847 |
| 4 | 2 | HF1-CBE-sgRNA-#1  | HF-CBE | 845 |
| 4 | 3 | HF1-CBE-sgRNA-#1  | HF-CBE | 844 |
| 4 | 4 | HF1-CBE-sgRNA-#1  | HF-CBE | 850 |
| 4 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 634 |
| 4 | 1 | HF1-CBE-sgRNA-#2  | HF-CBE | 635 |
| 4 | 2 | HF1-CBE-sgRNA-#2  | HF-CBE | 636 |
| 4 | 3 | HF1-CBE-sgRNA-#2  | HF-CBE | 632 |
| 4 | 4 | HF1-CBE-sgRNA-#2  | HF-CBE | 636 |
| 4 | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 325 |
| 4 | 1 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 328 |
| 4 | 2 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 305 |

|   |   |                   |        |     |
|---|---|-------------------|--------|-----|
| 4 | 3 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 305 |
| 4 | 4 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 328 |
| 4 | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 804 |
| 4 | 1 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 801 |
| 4 | 2 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 785 |
| 4 | 3 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 785 |
| 4 | 4 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 803 |
| 4 | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 939 |
| 4 | 1 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 941 |
| 4 | 2 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 936 |
| 4 | 3 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 933 |
| 4 | 4 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 938 |
| 6 | 0 | ABE-ACC-T4-#1     | ABE    | 355 |
| 6 | 1 | ABE-ACC-T4-#1     | ABE    | 361 |
| 6 | 2 | ABE-ACC-T4-#1     | ABE    | 362 |
| 6 | 3 | ABE-ACC-T4-#1     | ABE    | 356 |
| 6 | 4 | ABE-ACC-T4-#1     | ABE    | 363 |
| 6 | 0 | ABE-ACC-T4-#2     | ABE    | 269 |
| 6 | 1 | ABE-ACC-T4-#2     | ABE    | 266 |
| 6 | 2 | ABE-ACC-T4-#2     | ABE    | 263 |
| 6 | 3 | ABE-ACC-T4-#2     | ABE    | 274 |
| 6 | 4 | ABE-ACC-T4-#2     | ABE    | 263 |
| 6 | 0 | ABE-ACC-T4-#3     | ABE    | 377 |
| 6 | 1 | ABE-ACC-T4-#3     | ABE    | 383 |
| 6 | 2 | ABE-ACC-T4-#3     | ABE    | 384 |
| 6 | 3 | ABE-ACC-T4-#3     | ABE    | 380 |
| 6 | 4 | ABE-ACC-T4-#3     | ABE    | 385 |
| 6 | 0 | ABE-ALS-T2-#1     | ABE    | 295 |
| 6 | 1 | ABE-ALS-T2-#1     | ABE    | 310 |
| 6 | 2 | ABE-ALS-T2-#1     | ABE    | 309 |
| 6 | 3 | ABE-ALS-T2-#1     | ABE    | 296 |
| 6 | 4 | ABE-ALS-T2-#1     | ABE    | 295 |
| 6 | 0 | ABE-ALS-T2-#2     | ABE    | 261 |
| 6 | 1 | ABE-ALS-T2-#2     | ABE    | 277 |
| 6 | 2 | ABE-ALS-T2-#2     | ABE    | 277 |
| 6 | 3 | ABE-ALS-T2-#2     | ABE    | 261 |
| 6 | 4 | ABE-ALS-T2-#2     | ABE    | 261 |
| 6 | 0 | ABE-CDC48-T1-#1   | ABE    | 299 |
| 6 | 1 | ABE-CDC48-T1-#1   | ABE    | 294 |
| 6 | 2 | ABE-CDC48-T1-#1   | ABE    | 295 |
| 6 | 3 | ABE-CDC48-T1-#1   | ABE    | 301 |
| 6 | 4 | ABE-CDC48-T1-#1   | ABE    | 295 |
| 6 | 0 | ABE-CDC48-T1-#2   | ABE    | 334 |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 6 | 1 | ABE-CDC48-T1-#2   | ABE | 342 |
| 6 | 2 | ABE-CDC48-T1-#2   | ABE | 341 |
| 6 | 3 | ABE-CDC48-T1-#2   | ABE | 336 |
| 6 | 4 | ABE-CDC48-T1-#2   | ABE | 342 |
| 6 | 0 | ABE-CDC48-T1-#3   | ABE | 275 |
| 6 | 1 | ABE-CDC48-T1-#3   | ABE | 282 |
| 6 | 2 | ABE-CDC48-T1-#3   | ABE | 282 |
| 6 | 3 | ABE-CDC48-T1-#3   | ABE | 277 |
| 6 | 4 | ABE-CDC48-T1-#3   | ABE | 281 |
| 6 | 0 | ABE-CDC48-T1-#4   | ABE | 269 |
| 6 | 1 | ABE-CDC48-T1-#4   | ABE | 271 |
| 6 | 2 | ABE-CDC48-T1-#4   | ABE | 267 |
| 6 | 3 | ABE-CDC48-T1-#4   | ABE | 269 |
| 6 | 4 | ABE-CDC48-T1-#4   | ABE | 268 |
| 6 | 0 | ABE-CDC48-T1-#5   | ABE | 398 |
| 6 | 1 | ABE-CDC48-T1-#5   | ABE | 401 |
| 6 | 2 | ABE-CDC48-T1-#5   | ABE | 401 |
| 6 | 3 | ABE-CDC48-T1-#5   | ABE | 400 |
| 6 | 4 | ABE-CDC48-T1-#5   | ABE | 399 |
| 6 | 0 | ABE-CDC48-T1-#6   | ABE | 321 |
| 6 | 1 | ABE-CDC48-T1-#6   | ABE | 322 |
| 6 | 2 | ABE-CDC48-T1-#6   | ABE | 327 |
| 6 | 3 | ABE-CDC48-T1-#6   | ABE | 332 |
| 6 | 4 | ABE-CDC48-T1-#6   | ABE | 325 |
| 6 | 0 | ABE-DEP1-T1-#1    | ABE | 346 |
| 6 | 1 | ABE-DEP1-T1-#1    | ABE | 346 |
| 6 | 2 | ABE-DEP1-T1-#1    | ABE | 347 |
| 6 | 3 | ABE-DEP1-T1-#1    | ABE | 349 |
| 6 | 4 | ABE-DEP1-T1-#1    | ABE | 345 |
| 6 | 0 | ABE-DEP1-T1-#2    | ABE | 258 |
| 6 | 1 | ABE-DEP1-T1-#2    | ABE | 257 |
| 6 | 2 | ABE-DEP1-T1-#2    | ABE | 265 |
| 6 | 3 | ABE-DEP1-T1-#2    | ABE | 271 |
| 6 | 4 | ABE-DEP1-T1-#2    | ABE | 264 |
| 6 | 0 | ABE-DEP1-T1-#3    | ABE | 309 |
| 6 | 1 | ABE-DEP1-T1-#3    | ABE | 316 |
| 6 | 2 | ABE-DEP1-T1-#3    | ABE | 315 |
| 6 | 3 | ABE-DEP1-T1-#3    | ABE | 309 |
| 6 | 4 | ABE-DEP1-T1-#3    | ABE | 314 |
| 6 | 0 | ABE-NRT1.1B-T2-#1 | ABE | 236 |
| 6 | 1 | ABE-NRT1.1B-T2-#1 | ABE | 244 |
| 6 | 2 | ABE-NRT1.1B-T2-#1 | ABE | 243 |
| 6 | 3 | ABE-NRT1.1B-T2-#1 | ABE | 237 |

|   |   |                   |      |     |
|---|---|-------------------|------|-----|
| 6 | 4 | ABE-NRT1.1B-T2-#1 | ABE  | 236 |
| 6 | 0 | ABE-NRT1.1B-T2-#2 | ABE  | 259 |
| 6 | 1 | ABE-NRT1.1B-T2-#2 | ABE  | 259 |
| 6 | 2 | ABE-NRT1.1B-T2-#2 | ABE  | 270 |
| 6 | 3 | ABE-NRT1.1B-T2-#2 | ABE  | 273 |
| 6 | 4 | ABE-NRT1.1B-T2-#2 | ABE  | 270 |
| 6 | 0 | ABE-NRT1.1B-T2-#3 | ABE  | 184 |
| 6 | 1 | ABE-NRT1.1B-T2-#3 | ABE  | 186 |
| 6 | 2 | ABE-NRT1.1B-T2-#3 | ABE  | 186 |
| 6 | 3 | ABE-NRT1.1B-T2-#3 | ABE  | 183 |
| 6 | 4 | ABE-NRT1.1B-T2-#3 | ABE  | 187 |
| 6 | 0 | ABE-NRT1.1B-T2-#4 | ABE  | 568 |
| 6 | 1 | ABE-NRT1.1B-T2-#4 | ABE  | 569 |
| 6 | 2 | ABE-NRT1.1B-T2-#4 | ABE  | 570 |
| 6 | 3 | ABE-NRT1.1B-T2-#4 | ABE  | 573 |
| 6 | 4 | ABE-NRT1.1B-T2-#4 | ABE  | 569 |
| 6 | 0 | ABE-NRT1.1B-T2-#5 | ABE  | 672 |
| 6 | 1 | ABE-NRT1.1B-T2-#5 | ABE  | 677 |
| 6 | 2 | ABE-NRT1.1B-T2-#5 | ABE  | 675 |
| 6 | 3 | ABE-NRT1.1B-T2-#5 | ABE  | 673 |
| 6 | 4 | ABE-NRT1.1B-T2-#5 | ABE  | 675 |
| 6 | 0 | ABE-sgRNA-#1      | ABE  | 293 |
| 6 | 1 | ABE-sgRNA-#1      | ABE  | 293 |
| 6 | 2 | ABE-sgRNA-#1      | ABE  | 297 |
| 6 | 3 | ABE-sgRNA-#1      | ABE  | 295 |
| 6 | 4 | ABE-sgRNA-#1      | ABE  | 294 |
| 6 | 0 | ABE-sgRNA-#2      | ABE  | 386 |
| 6 | 1 | ABE-sgRNA-#2      | ABE  | 386 |
| 6 | 2 | ABE-sgRNA-#2      | ABE  | 386 |
| 6 | 3 | ABE-sgRNA-#2      | ABE  | 388 |
| 6 | 4 | ABE-sgRNA-#2      | ABE  | 385 |
| 6 | 0 | ABE-sgRNA-#3      | ABE  | 386 |
| 6 | 1 | ABE-sgRNA-#3      | ABE  | 378 |
| 6 | 2 | ABE-sgRNA-#3      | ABE  | 381 |
| 6 | 3 | ABE-sgRNA-#3      | ABE  | 387 |
| 6 | 4 | ABE-sgRNA-#3      | ABE  | 377 |
| 6 | 0 | ABE-sgRNA-#4      | ABE  | 280 |
| 6 | 1 | ABE-sgRNA-#4      | ABE  | 275 |
| 6 | 2 | ABE-sgRNA-#4      | ABE  | 227 |
| 6 | 3 | ABE-sgRNA-#4      | ABE  | 281 |
| 6 | 4 | ABE-sgRNA-#4      | ABE  | 223 |
| 6 | 0 | RGN-#1            | Agro | 475 |
| 6 | 1 | RGN-#1            | Agro | 477 |

|   |   |        |      |     |
|---|---|--------|------|-----|
| 6 | 2 | RGN-#1 | Agro | 477 |
| 6 | 3 | RGN-#1 | Agro | 476 |
| 6 | 4 | RGN-#1 | Agro | 476 |
| 6 | 0 | RGN-#2 | Agro | 436 |
| 6 | 1 | RGN-#2 | Agro | 436 |
| 6 | 2 | RGN-#2 | Agro | 440 |
| 6 | 3 | RGN-#2 | Agro | 438 |
| 6 | 4 | RGN-#2 | Agro | 434 |
| 6 | 0 | RGN-#3 | Agro | 244 |
| 6 | 1 | RGN-#3 | Agro | 245 |
| 6 | 2 | RGN-#3 | Agro | 254 |
| 6 | 3 | RGN-#3 | Agro | 260 |
| 6 | 4 | RGN-#3 | Agro | 255 |
| 6 | 0 | RGN-#4 | Agro | 366 |
| 6 | 1 | RGN-#4 | Agro | 369 |
| 6 | 2 | RGN-#4 | Agro | 370 |
| 6 | 3 | RGN-#4 | Agro | 366 |
| 6 | 4 | RGN-#4 | Agro | 366 |
| 6 | 0 | RGN-#5 | Agro | 247 |
| 6 | 1 | RGN-#5 | Agro | 242 |
| 6 | 2 | RGN-#5 | Agro | 243 |
| 6 | 3 | RGN-#5 | Agro | 248 |
| 6 | 4 | RGN-#5 | Agro | 243 |
| 6 | 0 | RGN-#6 | Agro | 300 |
| 6 | 1 | RGN-#6 | Agro | 308 |
| 6 | 2 | RGN-#6 | Agro | 307 |
| 6 | 3 | RGN-#6 | Agro | 300 |
| 6 | 4 | RGN-#6 | Agro | 299 |
| 6 | 0 | RGN-#7 | Agro | 296 |
| 6 | 1 | RGN-#7 | Agro | 294 |
| 6 | 2 | RGN-#7 | Agro | 291 |
| 6 | 3 | RGN-#7 | Agro | 299 |
| 6 | 4 | RGN-#7 | Agro | 296 |
| 6 | 0 | RGN-#8 | Agro | 434 |
| 6 | 1 | RGN-#8 | Agro | 429 |
| 6 | 2 | RGN-#8 | Agro | 429 |
| 6 | 3 | RGN-#8 | Agro | 427 |
| 6 | 4 | RGN-#8 | Agro | 430 |
| 6 | 0 | RGN-#9 | Agro | 275 |
| 6 | 1 | RGN-#9 | Agro | 273 |
| 6 | 2 | RGN-#9 | Agro | 279 |
| 6 | 3 | RGN-#9 | Agro | 278 |
| 6 | 4 | RGN-#9 | Agro | 280 |

|   |   |               |     |     |
|---|---|---------------|-----|-----|
| 6 | 0 | CBE-ACC-T1-#1 | CBE | 460 |
| 6 | 1 | CBE-ACC-T1-#1 | CBE | 461 |
| 6 | 2 | CBE-ACC-T1-#1 | CBE | 460 |
| 6 | 3 | CBE-ACC-T1-#1 | CBE | 462 |
| 6 | 4 | CBE-ACC-T1-#1 | CBE | 462 |
| 6 | 0 | CBE-ACC-T1-#2 | CBE | 646 |
| 6 | 1 | CBE-ACC-T1-#2 | CBE | 650 |
| 6 | 2 | CBE-ACC-T1-#2 | CBE | 649 |
| 6 | 3 | CBE-ACC-T1-#2 | CBE | 648 |
| 6 | 4 | CBE-ACC-T1-#2 | CBE | 649 |
| 6 | 0 | CBE-ACC-T2-#1 | CBE | 615 |
| 6 | 1 | CBE-ACC-T2-#1 | CBE | 610 |
| 6 | 2 | CBE-ACC-T2-#1 | CBE | 613 |
| 6 | 3 | CBE-ACC-T2-#1 | CBE | 610 |
| 6 | 4 | CBE-ACC-T2-#1 | CBE | 611 |
| 6 | 0 | CBE-ACC-T2-#2 | CBE | 560 |
| 6 | 1 | CBE-ACC-T2-#2 | CBE | 560 |
| 6 | 2 | CBE-ACC-T2-#2 | CBE | 562 |
| 6 | 3 | CBE-ACC-T2-#2 | CBE | 559 |
| 6 | 4 | CBE-ACC-T2-#2 | CBE | 561 |
| 6 | 0 | CBE-ACC-T2-#3 | CBE | 603 |
| 6 | 1 | CBE-ACC-T2-#3 | CBE | 604 |
| 6 | 2 | CBE-ACC-T2-#3 | CBE | 601 |
| 6 | 3 | CBE-ACC-T2-#3 | CBE | 605 |
| 6 | 4 | CBE-ACC-T2-#3 | CBE | 603 |
| 6 | 0 | CBE-ACC-T3-#1 | CBE | 432 |
| 6 | 1 | CBE-ACC-T3-#1 | CBE | 432 |
| 6 | 2 | CBE-ACC-T3-#1 | CBE | 438 |
| 6 | 3 | CBE-ACC-T3-#1 | CBE | 441 |
| 6 | 4 | CBE-ACC-T3-#1 | CBE | 435 |
| 6 | 0 | CBE-ACC-T3-#2 | CBE | 473 |
| 6 | 1 | CBE-ACC-T3-#2 | CBE | 497 |
| 6 | 2 | CBE-ACC-T3-#2 | CBE | 495 |
| 6 | 3 | CBE-ACC-T3-#2 | CBE | 473 |
| 6 | 4 | CBE-ACC-T3-#2 | CBE | 473 |
| 6 | 0 | CBE-ACC-T3-#3 | CBE | 309 |
| 6 | 1 | CBE-ACC-T3-#3 | CBE | 309 |
| 6 | 2 | CBE-ACC-T3-#3 | CBE | 315 |
| 6 | 3 | CBE-ACC-T3-#3 | CBE | 322 |
| 6 | 4 | CBE-ACC-T3-#3 | CBE | 313 |
| 6 | 0 | CBE-ALS-T1-#1 | CBE | 480 |
| 6 | 1 | CBE-ALS-T1-#1 | CBE | 499 |
| 6 | 2 | CBE-ALS-T1-#1 | CBE | 489 |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 6 | 3 | CBE-ALS-T1-#1     | CBE | 482 |
| 6 | 4 | CBE-ALS-T1-#1     | CBE | 489 |
| 6 | 0 | CBE-ALS-T1-#2     | CBE | 516 |
| 6 | 1 | CBE-ALS-T1-#2     | CBE | 526 |
| 6 | 2 | CBE-ALS-T1-#2     | CBE | 527 |
| 6 | 3 | CBE-ALS-T1-#2     | CBE | 517 |
| 6 | 4 | CBE-ALS-T1-#2     | CBE | 525 |
| 6 | 0 | CBE-ALS-T1-#3     | CBE | 401 |
| 6 | 1 | CBE-ALS-T1-#3     | CBE | 397 |
| 6 | 2 | CBE-ALS-T1-#3     | CBE | 400 |
| 6 | 3 | CBE-ALS-T1-#3     | CBE | 407 |
| 6 | 4 | CBE-ALS-T1-#3     | CBE | 398 |
| 6 | 0 | CBE-NRT1.1B-T1-#1 | CBE | 381 |
| 6 | 1 | CBE-NRT1.1B-T1-#1 | CBE | 389 |
| 6 | 2 | CBE-NRT1.1B-T1-#1 | CBE | 387 |
| 6 | 3 | CBE-NRT1.1B-T1-#1 | CBE | 382 |
| 6 | 4 | CBE-NRT1.1B-T1-#1 | CBE | 387 |
| 6 | 0 | CBE-NRT1.1B-T1-#2 | CBE | 475 |
| 6 | 1 | CBE-NRT1.1B-T1-#2 | CBE | 482 |
| 6 | 2 | CBE-NRT1.1B-T1-#2 | CBE | 483 |
| 6 | 3 | CBE-NRT1.1B-T1-#2 | CBE | 475 |
| 6 | 4 | CBE-NRT1.1B-T1-#2 | CBE | 481 |
| 6 | 0 | CBE-NRT1.1B-T1-#3 | CBE | 723 |
| 6 | 1 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 6 | 2 | CBE-NRT1.1B-T1-#3 | CBE | 716 |
| 6 | 3 | CBE-NRT1.1B-T1-#3 | CBE | 728 |
| 6 | 4 | CBE-NRT1.1B-T1-#3 | CBE | 716 |
| 6 | 0 | CBE-sgRNA-#1      | CBE | 954 |
| 6 | 1 | CBE-sgRNA-#1      | CBE | 955 |
| 6 | 2 | CBE-sgRNA-#1      | CBE | 957 |
| 6 | 3 | CBE-sgRNA-#1      | CBE | 958 |
| 6 | 4 | CBE-sgRNA-#1      | CBE | 957 |
| 6 | 0 | CBE-sgRNA-#2      | CBE | 510 |
| 6 | 1 | CBE-sgRNA-#2      | CBE | 510 |
| 6 | 2 | CBE-sgRNA-#2      | CBE | 510 |
| 6 | 3 | CBE-sgRNA-#2      | CBE | 515 |
| 6 | 4 | CBE-sgRNA-#2      | CBE | 512 |
| 6 | 0 | CBE-sgRNA-#3      | CBE | 441 |
| 6 | 1 | CBE-sgRNA-#3      | CBE | 440 |
| 6 | 2 | CBE-sgRNA-#3      | CBE | 441 |
| 6 | 3 | CBE-sgRNA-#3      | CBE | 441 |
| 6 | 4 | CBE-sgRNA-#3      | CBE | 442 |
| 6 | 0 | CBE-sgRNA-#4      | CBE | 342 |

|   |   |                   |        |     |
|---|---|-------------------|--------|-----|
| 6 | 1 | CBE-sgRNA-#4      | CBE    | 343 |
| 6 | 2 | CBE-sgRNA-#4      | CBE    | 341 |
| 6 | 3 | CBE-sgRNA-#4      | CBE    | 342 |
| 6 | 4 | CBE-sgRNA-#4      | CBE    | 342 |
| 6 | 0 | CBE-sgRNA-#5      | CBE    | 503 |
| 6 | 1 | CBE-sgRNA-#5      | CBE    | 502 |
| 6 | 2 | CBE-sgRNA-#5      | CBE    | 502 |
| 6 | 3 | CBE-sgRNA-#5      | CBE    | 502 |
| 6 | 4 | CBE-sgRNA-#5      | CBE    | 502 |
| 6 | 0 | CBE-Wxb-T1-#1     | CBE    | 333 |
| 6 | 1 | CBE-Wxb-T1-#1     | CBE    | 335 |
| 6 | 2 | CBE-Wxb-T1-#1     | CBE    | 335 |
| 6 | 3 | CBE-Wxb-T1-#1     | CBE    | 334 |
| 6 | 4 | CBE-Wxb-T1-#1     | CBE    | 339 |
| 6 | 0 | CBE-Wxb-T1-#2     | CBE    | 640 |
| 6 | 1 | CBE-Wxb-T1-#2     | CBE    | 644 |
| 6 | 2 | CBE-Wxb-T1-#2     | CBE    | 645 |
| 6 | 3 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 6 | 4 | CBE-Wxb-T1-#2     | CBE    | 647 |
| 6 | 0 | CBE-Wxb-T1-#3     | CBE    | 353 |
| 6 | 1 | CBE-Wxb-T1-#3     | CBE    | 349 |
| 6 | 2 | CBE-Wxb-T1-#3     | CBE    | 350 |
| 6 | 3 | CBE-Wxb-T1-#3     | CBE    | 355 |
| 6 | 4 | CBE-Wxb-T1-#3     | CBE    | 350 |
| 6 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 551 |
| 6 | 1 | HF1-CBE-ACC-T3-#1 | HF-CBE | 550 |
| 6 | 2 | HF1-CBE-ACC-T3-#1 | HF-CBE | 555 |
| 6 | 3 | HF1-CBE-ACC-T3-#1 | HF-CBE | 562 |
| 6 | 4 | HF1-CBE-ACC-T3-#1 | HF-CBE | 555 |
| 6 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 541 |
| 6 | 1 | HF1-CBE-ACC-T3-#2 | HF-CBE | 540 |
| 6 | 2 | HF1-CBE-ACC-T3-#2 | HF-CBE | 541 |
| 6 | 3 | HF1-CBE-ACC-T3-#2 | HF-CBE | 542 |
| 6 | 4 | HF1-CBE-ACC-T3-#2 | HF-CBE | 539 |
| 6 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 812 |
| 6 | 1 | HF1-CBE-ACC-T3-#3 | HF-CBE | 807 |
| 6 | 2 | HF1-CBE-ACC-T3-#3 | HF-CBE | 808 |
| 6 | 3 | HF1-CBE-ACC-T3-#3 | HF-CBE | 818 |
| 6 | 4 | HF1-CBE-ACC-T3-#3 | HF-CBE | 806 |
| 6 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 448 |
| 6 | 1 | HF1-CBE-ALS-T1-#1 | HF-CBE | 447 |
| 6 | 2 | HF1-CBE-ALS-T1-#1 | HF-CBE | 453 |
| 6 | 3 | HF1-CBE-ALS-T1-#1 | HF-CBE | 459 |

|   |   |                   |        |     |
|---|---|-------------------|--------|-----|
| 6 | 4 | HF1-CBE-ALS-T1-#1 | HF-CBE | 450 |
| 6 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 6 | 1 | HF1-CBE-ALS-T1-#2 | HF-CBE | 505 |
| 6 | 2 | HF1-CBE-ALS-T1-#2 | HF-CBE | 507 |
| 6 | 3 | HF1-CBE-ALS-T1-#2 | HF-CBE | 495 |
| 6 | 4 | HF1-CBE-ALS-T1-#2 | HF-CBE | 507 |
| 6 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 658 |
| 6 | 1 | HF1-CBE-ALS-T1-#3 | HF-CBE | 668 |
| 6 | 2 | HF1-CBE-ALS-T1-#3 | HF-CBE | 665 |
| 6 | 3 | HF1-CBE-ALS-T1-#3 | HF-CBE | 660 |
| 6 | 4 | HF1-CBE-ALS-T1-#3 | HF-CBE | 664 |
| 6 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 842 |
| 6 | 1 | HF1-CBE-sgRNA-#1  | HF-CBE | 842 |
| 6 | 2 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 6 | 3 | HF1-CBE-sgRNA-#1  | HF-CBE | 845 |
| 6 | 4 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 6 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 6 | 1 | HF1-CBE-sgRNA-#2  | HF-CBE | 632 |
| 6 | 2 | HF1-CBE-sgRNA-#2  | HF-CBE | 632 |
| 6 | 3 | HF1-CBE-sgRNA-#2  | HF-CBE | 627 |
| 6 | 4 | HF1-CBE-sgRNA-#2  | HF-CBE | 631 |
| 6 | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 320 |
| 6 | 1 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 315 |
| 6 | 2 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 302 |
| 6 | 3 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 322 |
| 6 | 4 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 302 |
| 6 | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 797 |
| 6 | 1 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 791 |
| 6 | 2 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 781 |
| 6 | 3 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 800 |
| 6 | 4 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 779 |
| 6 | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |
| 6 | 1 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 937 |
| 6 | 2 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 935 |
| 6 | 3 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 6 | 4 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 933 |
| 8 | 0 | ABE-ACC-T4-#1     | ABE    | 355 |
| 8 | 1 | ABE-ACC-T4-#1     | ABE    | 362 |
| 8 | 2 | ABE-ACC-T4-#1     | ABE    | 355 |
| 8 | 3 | ABE-ACC-T4-#1     | ABE    | 355 |
| 8 | 4 | ABE-ACC-T4-#1     | ABE    | 356 |
| 8 | 0 | ABE-ACC-T4-#2     | ABE    | 263 |
| 8 | 1 | ABE-ACC-T4-#2     | ABE    | 262 |

|   |   |                 |     |     |
|---|---|-----------------|-----|-----|
| 8 | 2 | ABE-ACC-T4-#2   | ABE | 262 |
| 8 | 3 | ABE-ACC-T4-#2   | ABE | 262 |
| 8 | 4 | ABE-ACC-T4-#2   | ABE | 264 |
| 8 | 0 | ABE-ACC-T4-#3   | ABE | 377 |
| 8 | 1 | ABE-ACC-T4-#3   | ABE | 384 |
| 8 | 2 | ABE-ACC-T4-#3   | ABE | 378 |
| 8 | 3 | ABE-ACC-T4-#3   | ABE | 379 |
| 8 | 4 | ABE-ACC-T4-#3   | ABE | 378 |
| 8 | 0 | ABE-ALS-T2-#1   | ABE | 309 |
| 8 | 1 | ABE-ALS-T2-#1   | ABE | 309 |
| 8 | 2 | ABE-ALS-T2-#1   | ABE | 294 |
| 8 | 3 | ABE-ALS-T2-#1   | ABE | 296 |
| 8 | 4 | ABE-ALS-T2-#1   | ABE | 309 |
| 8 | 0 | ABE-ALS-T2-#2   | ABE | 276 |
| 8 | 1 | ABE-ALS-T2-#2   | ABE | 276 |
| 8 | 2 | ABE-ALS-T2-#2   | ABE | 261 |
| 8 | 3 | ABE-ALS-T2-#2   | ABE | 261 |
| 8 | 4 | ABE-ALS-T2-#2   | ABE | 278 |
| 8 | 0 | ABE-CDC48-T1-#1 | ABE | 293 |
| 8 | 1 | ABE-CDC48-T1-#1 | ABE | 295 |
| 8 | 2 | ABE-CDC48-T1-#1 | ABE | 293 |
| 8 | 3 | ABE-CDC48-T1-#1 | ABE | 295 |
| 8 | 4 | ABE-CDC48-T1-#1 | ABE | 293 |
| 8 | 0 | ABE-CDC48-T1-#2 | ABE | 334 |
| 8 | 1 | ABE-CDC48-T1-#2 | ABE | 340 |
| 8 | 2 | ABE-CDC48-T1-#2 | ABE | 334 |
| 8 | 3 | ABE-CDC48-T1-#2 | ABE | 336 |
| 8 | 4 | ABE-CDC48-T1-#2 | ABE | 336 |
| 8 | 0 | ABE-CDC48-T1-#3 | ABE | 275 |
| 8 | 1 | ABE-CDC48-T1-#3 | ABE | 281 |
| 8 | 2 | ABE-CDC48-T1-#3 | ABE | 275 |
| 8 | 3 | ABE-CDC48-T1-#3 | ABE | 280 |
| 8 | 4 | ABE-CDC48-T1-#3 | ABE | 275 |
| 8 | 0 | ABE-CDC48-T1-#4 | ABE | 266 |
| 8 | 1 | ABE-CDC48-T1-#4 | ABE | 267 |
| 8 | 2 | ABE-CDC48-T1-#4 | ABE | 266 |
| 8 | 3 | ABE-CDC48-T1-#4 | ABE | 267 |
| 8 | 4 | ABE-CDC48-T1-#4 | ABE | 268 |
| 8 | 0 | ABE-CDC48-T1-#5 | ABE | 398 |
| 8 | 1 | ABE-CDC48-T1-#5 | ABE | 399 |
| 8 | 2 | ABE-CDC48-T1-#5 | ABE | 398 |
| 8 | 3 | ABE-CDC48-T1-#5 | ABE | 399 |
| 8 | 4 | ABE-CDC48-T1-#5 | ABE | 398 |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 8 | 0 | ABE-CDC48-T1-#6   | ABE | 320 |
| 8 | 1 | ABE-CDC48-T1-#6   | ABE | 325 |
| 8 | 2 | ABE-CDC48-T1-#6   | ABE | 320 |
| 8 | 3 | ABE-CDC48-T1-#6   | ABE | 320 |
| 8 | 4 | ABE-CDC48-T1-#6   | ABE | 327 |
| 8 | 0 | ABE-DEP1-T1-#1    | ABE | 346 |
| 8 | 1 | ABE-DEP1-T1-#1    | ABE | 346 |
| 8 | 2 | ABE-DEP1-T1-#1    | ABE | 346 |
| 8 | 3 | ABE-DEP1-T1-#1    | ABE | 346 |
| 8 | 4 | ABE-DEP1-T1-#1    | ABE | 345 |
| 8 | 0 | ABE-DEP1-T1-#2    | ABE | 257 |
| 8 | 1 | ABE-DEP1-T1-#2    | ABE | 264 |
| 8 | 2 | ABE-DEP1-T1-#2    | ABE | 257 |
| 8 | 3 | ABE-DEP1-T1-#2    | ABE | 258 |
| 8 | 4 | ABE-DEP1-T1-#2    | ABE | 264 |
| 8 | 0 | ABE-DEP1-T1-#3    | ABE | 308 |
| 8 | 1 | ABE-DEP1-T1-#3    | ABE | 314 |
| 8 | 2 | ABE-DEP1-T1-#3    | ABE | 308 |
| 8 | 3 | ABE-DEP1-T1-#3    | ABE | 308 |
| 8 | 4 | ABE-DEP1-T1-#3    | ABE | 308 |
| 8 | 0 | ABE-NRT1.1B-T2-#1 | ABE | 242 |
| 8 | 1 | ABE-NRT1.1B-T2-#1 | ABE | 242 |
| 8 | 2 | ABE-NRT1.1B-T2-#1 | ABE | 234 |
| 8 | 3 | ABE-NRT1.1B-T2-#1 | ABE | 235 |
| 8 | 4 | ABE-NRT1.1B-T2-#1 | ABE | 242 |
| 8 | 0 | ABE-NRT1.1B-T2-#2 | ABE | 258 |
| 8 | 1 | ABE-NRT1.1B-T2-#2 | ABE | 267 |
| 8 | 2 | ABE-NRT1.1B-T2-#2 | ABE | 258 |
| 8 | 3 | ABE-NRT1.1B-T2-#2 | ABE | 260 |
| 8 | 4 | ABE-NRT1.1B-T2-#2 | ABE | 266 |
| 8 | 0 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 8 | 1 | ABE-NRT1.1B-T2-#3 | ABE | 186 |
| 8 | 2 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 8 | 3 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 8 | 4 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 8 | 0 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 8 | 1 | ABE-NRT1.1B-T2-#4 | ABE | 569 |
| 8 | 2 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 8 | 3 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 8 | 4 | ABE-NRT1.1B-T2-#4 | ABE | 569 |
| 8 | 0 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 8 | 1 | ABE-NRT1.1B-T2-#5 | ABE | 675 |
| 8 | 2 | ABE-NRT1.1B-T2-#5 | ABE | 672 |

|   |   |                   |      |     |
|---|---|-------------------|------|-----|
| 8 | 3 | ABE-NRT1.1B-T2-#5 | ABE  | 672 |
| 8 | 4 | ABE-NRT1.1B-T2-#5 | ABE  | 674 |
| 8 | 0 | ABE-sgRNA-#1      | ABE  | 293 |
| 8 | 1 | ABE-sgRNA-#1      | ABE  | 295 |
| 8 | 2 | ABE-sgRNA-#1      | ABE  | 294 |
| 8 | 3 | ABE-sgRNA-#1      | ABE  | 293 |
| 8 | 4 | ABE-sgRNA-#1      | ABE  | 295 |
| 8 | 0 | ABE-sgRNA-#2      | ABE  | 385 |
| 8 | 1 | ABE-sgRNA-#2      | ABE  | 385 |
| 8 | 2 | ABE-sgRNA-#2      | ABE  | 385 |
| 8 | 3 | ABE-sgRNA-#2      | ABE  | 385 |
| 8 | 4 | ABE-sgRNA-#2      | ABE  | 385 |
| 8 | 0 | ABE-sgRNA-#3      | ABE  | 377 |
| 8 | 1 | ABE-sgRNA-#3      | ABE  | 379 |
| 8 | 2 | ABE-sgRNA-#3      | ABE  | 376 |
| 8 | 3 | ABE-sgRNA-#3      | ABE  | 377 |
| 8 | 4 | ABE-sgRNA-#3      | ABE  | 374 |
| 8 | 0 | ABE-sgRNA-#4      | ABE  | 223 |
| 8 | 1 | ABE-sgRNA-#4      | ABE  | 224 |
| 8 | 2 | ABE-sgRNA-#4      | ABE  | 223 |
| 8 | 3 | ABE-sgRNA-#4      | ABE  | 223 |
| 8 | 4 | ABE-sgRNA-#4      | ABE  | 222 |
| 8 | 0 | RGN-#1            | Agro | 474 |
| 8 | 1 | RGN-#1            | Agro | 477 |
| 8 | 2 | RGN-#1            | Agro | 474 |
| 8 | 3 | RGN-#1            | Agro | 475 |
| 8 | 4 | RGN-#1            | Agro | 474 |
| 8 | 0 | RGN-#2            | Agro | 436 |
| 8 | 1 | RGN-#2            | Agro | 436 |
| 8 | 2 | RGN-#2            | Agro | 435 |
| 8 | 3 | RGN-#2            | Agro | 435 |
| 8 | 4 | RGN-#2            | Agro | 436 |
| 8 | 0 | RGN-#3            | Agro | 243 |
| 8 | 1 | RGN-#3            | Agro | 254 |
| 8 | 2 | RGN-#3            | Agro | 243 |
| 8 | 3 | RGN-#3            | Agro | 243 |
| 8 | 4 | RGN-#3            | Agro | 255 |
| 8 | 0 | RGN-#4            | Agro | 369 |
| 8 | 1 | RGN-#4            | Agro | 369 |
| 8 | 2 | RGN-#4            | Agro | 367 |
| 8 | 3 | RGN-#4            | Agro | 366 |
| 8 | 4 | RGN-#4            | Agro | 368 |
| 8 | 0 | RGN-#5            | Agro | 243 |

|   |   |               |      |     |
|---|---|---------------|------|-----|
| 8 | 1 | RGN-#5        | Agro | 243 |
| 8 | 2 | RGN-#5        | Agro | 244 |
| 8 | 3 | RGN-#5        | Agro | 243 |
| 8 | 4 | RGN-#5        | Agro | 243 |
| 8 | 0 | RGN-#6        | Agro | 307 |
| 8 | 1 | RGN-#6        | Agro | 307 |
| 8 | 2 | RGN-#6        | Agro | 300 |
| 8 | 3 | RGN-#6        | Agro | 305 |
| 8 | 4 | RGN-#6        | Agro | 308 |
| 8 | 0 | RGN-#7        | Agro | 290 |
| 8 | 1 | RGN-#7        | Agro | 289 |
| 8 | 2 | RGN-#7        | Agro | 292 |
| 8 | 3 | RGN-#7        | Agro | 297 |
| 8 | 4 | RGN-#7        | Agro | 291 |
| 8 | 0 | RGN-#8        | Agro | 427 |
| 8 | 1 | RGN-#8        | Agro | 427 |
| 8 | 2 | RGN-#8        | Agro | 427 |
| 8 | 3 | RGN-#8        | Agro | 433 |
| 8 | 4 | RGN-#8        | Agro | 427 |
| 8 | 0 | RGN-#9        | Agro | 275 |
| 8 | 1 | RGN-#9        | Agro | 276 |
| 8 | 2 | RGN-#9        | Agro | 275 |
| 8 | 3 | RGN-#9        | Agro | 277 |
| 8 | 4 | RGN-#9        | Agro | 275 |
| 8 | 0 | CBE-ACC-T1-#1 | CBE  | 460 |
| 8 | 1 | CBE-ACC-T1-#1 | CBE  | 460 |
| 8 | 2 | CBE-ACC-T1-#1 | CBE  | 460 |
| 8 | 3 | CBE-ACC-T1-#1 | CBE  | 464 |
| 8 | 4 | CBE-ACC-T1-#1 | CBE  | 461 |
| 8 | 0 | CBE-ACC-T1-#2 | CBE  | 646 |
| 8 | 1 | CBE-ACC-T1-#2 | CBE  | 649 |
| 8 | 2 | CBE-ACC-T1-#2 | CBE  | 647 |
| 8 | 3 | CBE-ACC-T1-#2 | CBE  | 646 |
| 8 | 4 | CBE-ACC-T1-#2 | CBE  | 646 |
| 8 | 0 | CBE-ACC-T2-#1 | CBE  | 609 |
| 8 | 1 | CBE-ACC-T2-#1 | CBE  | 612 |
| 8 | 2 | CBE-ACC-T2-#1 | CBE  | 609 |
| 8 | 3 | CBE-ACC-T2-#1 | CBE  | 613 |
| 8 | 4 | CBE-ACC-T2-#1 | CBE  | 610 |
| 8 | 0 | CBE-ACC-T2-#2 | CBE  | 559 |
| 8 | 1 | CBE-ACC-T2-#2 | CBE  | 560 |
| 8 | 2 | CBE-ACC-T2-#2 | CBE  | 559 |
| 8 | 3 | CBE-ACC-T2-#2 | CBE  | 562 |

|   |   |                   |     |     |
|---|---|-------------------|-----|-----|
| 8 | 4 | CBE-ACC-T2-#2     | CBE | 559 |
| 8 | 0 | CBE-ACC-T2-#3     | CBE | 601 |
| 8 | 1 | CBE-ACC-T2-#3     | CBE | 601 |
| 8 | 2 | CBE-ACC-T2-#3     | CBE | 601 |
| 8 | 3 | CBE-ACC-T2-#3     | CBE | 603 |
| 8 | 4 | CBE-ACC-T2-#3     | CBE | 602 |
| 8 | 0 | CBE-ACC-T3-#1     | CBE | 429 |
| 8 | 1 | CBE-ACC-T3-#1     | CBE | 437 |
| 8 | 2 | CBE-ACC-T3-#1     | CBE | 429 |
| 8 | 3 | CBE-ACC-T3-#1     | CBE | 429 |
| 8 | 4 | CBE-ACC-T3-#1     | CBE | 436 |
| 8 | 0 | CBE-ACC-T3-#2     | CBE | 494 |
| 8 | 1 | CBE-ACC-T3-#2     | CBE | 494 |
| 8 | 2 | CBE-ACC-T3-#2     | CBE | 473 |
| 8 | 3 | CBE-ACC-T3-#2     | CBE | 473 |
| 8 | 4 | CBE-ACC-T3-#2     | CBE | 495 |
| 8 | 0 | CBE-ACC-T3-#3     | CBE | 307 |
| 8 | 1 | CBE-ACC-T3-#3     | CBE | 313 |
| 8 | 2 | CBE-ACC-T3-#3     | CBE | 308 |
| 8 | 3 | CBE-ACC-T3-#3     | CBE | 307 |
| 8 | 4 | CBE-ACC-T3-#3     | CBE | 314 |
| 8 | 0 | CBE-ALS-T1-#1     | CBE | 480 |
| 8 | 1 | CBE-ALS-T1-#1     | CBE | 489 |
| 8 | 2 | CBE-ALS-T1-#1     | CBE | 481 |
| 8 | 3 | CBE-ALS-T1-#1     | CBE | 480 |
| 8 | 4 | CBE-ALS-T1-#1     | CBE | 483 |
| 8 | 0 | CBE-ALS-T1-#2     | CBE | 515 |
| 8 | 1 | CBE-ALS-T1-#2     | CBE | 526 |
| 8 | 2 | CBE-ALS-T1-#2     | CBE | 514 |
| 8 | 3 | CBE-ALS-T1-#2     | CBE | 514 |
| 8 | 4 | CBE-ALS-T1-#2     | CBE | 516 |
| 8 | 0 | CBE-ALS-T1-#3     | CBE | 395 |
| 8 | 1 | CBE-ALS-T1-#3     | CBE | 398 |
| 8 | 2 | CBE-ALS-T1-#3     | CBE | 395 |
| 8 | 3 | CBE-ALS-T1-#3     | CBE | 395 |
| 8 | 4 | CBE-ALS-T1-#3     | CBE | 397 |
| 8 | 0 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 8 | 1 | CBE-NRT1.1B-T1-#1 | CBE | 386 |
| 8 | 2 | CBE-NRT1.1B-T1-#1 | CBE | 381 |
| 8 | 3 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 8 | 4 | CBE-NRT1.1B-T1-#1 | CBE | 382 |
| 8 | 0 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 8 | 1 | CBE-NRT1.1B-T1-#2 | CBE | 482 |

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|---|---|-------------------|-----|-----|
| 8 | 2 | CBE-NRT1.1B-T1-#2 | CBE | 473 |
| 8 | 3 | CBE-NRT1.1B-T1-#2 | CBE | 473 |
| 8 | 4 | CBE-NRT1.1B-T1-#2 | CBE | 476 |
| 8 | 0 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 8 | 1 | CBE-NRT1.1B-T1-#3 | CBE | 715 |
| 8 | 2 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 8 | 3 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 8 | 4 | CBE-NRT1.1B-T1-#3 | CBE | 716 |
| 8 | 0 | CBE-sgRNA-#1      | CBE | 954 |
| 8 | 1 | CBE-sgRNA-#1      | CBE | 957 |
| 8 | 2 | CBE-sgRNA-#1      | CBE | 955 |
| 8 | 3 | CBE-sgRNA-#1      | CBE | 954 |
| 8 | 4 | CBE-sgRNA-#1      | CBE | 957 |
| 8 | 0 | CBE-sgRNA-#2      | CBE | 510 |
| 8 | 1 | CBE-sgRNA-#2      | CBE | 510 |
| 8 | 2 | CBE-sgRNA-#2      | CBE | 511 |
| 8 | 3 | CBE-sgRNA-#2      | CBE | 513 |
| 8 | 4 | CBE-sgRNA-#2      | CBE | 510 |
| 8 | 0 | CBE-sgRNA-#3      | CBE | 438 |
| 8 | 1 | CBE-sgRNA-#3      | CBE | 440 |
| 8 | 2 | CBE-sgRNA-#3      | CBE | 438 |
| 8 | 3 | CBE-sgRNA-#3      | CBE | 442 |
| 8 | 4 | CBE-sgRNA-#3      | CBE | 441 |
| 8 | 0 | CBE-sgRNA-#4      | CBE | 341 |
| 8 | 1 | CBE-sgRNA-#4      | CBE | 340 |
| 8 | 2 | CBE-sgRNA-#4      | CBE | 341 |
| 8 | 3 | CBE-sgRNA-#4      | CBE | 344 |
| 8 | 4 | CBE-sgRNA-#4      | CBE | 341 |
| 8 | 0 | CBE-sgRNA-#5      | CBE | 499 |
| 8 | 1 | CBE-sgRNA-#5      | CBE | 500 |
| 8 | 2 | CBE-sgRNA-#5      | CBE | 499 |
| 8 | 3 | CBE-sgRNA-#5      | CBE | 500 |
| 8 | 4 | CBE-sgRNA-#5      | CBE | 498 |
| 8 | 0 | CBE-Wxb-T1-#1     | CBE | 330 |
| 8 | 1 | CBE-Wxb-T1-#1     | CBE | 335 |
| 8 | 2 | CBE-Wxb-T1-#1     | CBE | 330 |
| 8 | 3 | CBE-Wxb-T1-#1     | CBE | 330 |
| 8 | 4 | CBE-Wxb-T1-#1     | CBE | 331 |
| 8 | 0 | CBE-Wxb-T1-#2     | CBE | 640 |
| 8 | 1 | CBE-Wxb-T1-#2     | CBE | 643 |
| 8 | 2 | CBE-Wxb-T1-#2     | CBE | 640 |
| 8 | 3 | CBE-Wxb-T1-#2     | CBE | 646 |
| 8 | 4 | CBE-Wxb-T1-#2     | CBE | 640 |

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|---|---|-------------------|--------|-----|
| 8 | 0 | CBE-Wxb-T1-#3     | CBE    | 349 |
| 8 | 1 | CBE-Wxb-T1-#3     | CBE    | 349 |
| 8 | 2 | CBE-Wxb-T1-#3     | CBE    | 349 |
| 8 | 3 | CBE-Wxb-T1-#3     | CBE    | 352 |
| 8 | 4 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 8 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 8 | 1 | HF1-CBE-ACC-T3-#1 | HF-CBE | 555 |
| 8 | 2 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 8 | 3 | HF1-CBE-ACC-T3-#1 | HF-CBE | 550 |
| 8 | 4 | HF1-CBE-ACC-T3-#1 | HF-CBE | 555 |
| 8 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 8 | 1 | HF1-CBE-ACC-T3-#2 | HF-CBE | 540 |
| 8 | 2 | HF1-CBE-ACC-T3-#2 | HF-CBE | 541 |
| 8 | 3 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 8 | 4 | HF1-CBE-ACC-T3-#2 | HF-CBE | 540 |
| 8 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 804 |
| 8 | 1 | HF1-CBE-ACC-T3-#3 | HF-CBE | 807 |
| 8 | 2 | HF1-CBE-ACC-T3-#3 | HF-CBE | 804 |
| 8 | 3 | HF1-CBE-ACC-T3-#3 | HF-CBE | 805 |
| 8 | 4 | HF1-CBE-ACC-T3-#3 | HF-CBE | 807 |
| 8 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 8 | 1 | HF1-CBE-ALS-T1-#1 | HF-CBE | 451 |
| 8 | 2 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 8 | 3 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 8 | 4 | HF1-CBE-ALS-T1-#1 | HF-CBE | 451 |
| 8 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 8 | 1 | HF1-CBE-ALS-T1-#2 | HF-CBE | 507 |
| 8 | 2 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 8 | 3 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 8 | 4 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 8 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 658 |
| 8 | 1 | HF1-CBE-ALS-T1-#3 | HF-CBE | 665 |
| 8 | 2 | HF1-CBE-ALS-T1-#3 | HF-CBE | 658 |
| 8 | 3 | HF1-CBE-ALS-T1-#3 | HF-CBE | 657 |
| 8 | 4 | HF1-CBE-ALS-T1-#3 | HF-CBE | 659 |
| 8 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 8 | 1 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 8 | 2 | HF1-CBE-sgRNA-#1  | HF-CBE | 843 |
| 8 | 3 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 8 | 4 | HF1-CBE-sgRNA-#1  | HF-CBE | 842 |
| 8 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 8 | 1 | HF1-CBE-sgRNA-#2  | HF-CBE | 632 |
| 8 | 2 | HF1-CBE-sgRNA-#2  | HF-CBE | 624 |

|    |   |                   |        |     |
|----|---|-------------------|--------|-----|
| 8  | 3 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 8  | 4 | HF1-CBE-sgRNA-#2  | HF-CBE | 626 |
| 8  | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 299 |
| 8  | 1 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 300 |
| 8  | 2 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 300 |
| 8  | 3 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 299 |
| 8  | 4 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 299 |
| 8  | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 8  | 1 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 779 |
| 8  | 2 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 779 |
| 8  | 3 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 8  | 4 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 8  | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 8  | 1 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 934 |
| 8  | 2 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |
| 8  | 3 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |
| 8  | 4 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 10 | 0 | ABE-ACC-T4-#1     | ABE    | 356 |
| 10 | 1 | ABE-ACC-T4-#1     | ABE    | 355 |
| 10 | 2 | ABE-ACC-T4-#1     | ABE    | 356 |
| 10 | 3 | ABE-ACC-T4-#1     | ABE    | 355 |
| 10 | 4 | ABE-ACC-T4-#1     | ABE    | 355 |
| 10 | 0 | ABE-ACC-T4-#2     | ABE    | 272 |
| 10 | 1 | ABE-ACC-T4-#2     | ABE    | 262 |
| 10 | 2 | ABE-ACC-T4-#2     | ABE    | 262 |
| 10 | 3 | ABE-ACC-T4-#2     | ABE    | 262 |
| 10 | 4 | ABE-ACC-T4-#2     | ABE    | 262 |
| 10 | 0 | ABE-ACC-T4-#3     | ABE    | 377 |
| 10 | 1 | ABE-ACC-T4-#3     | ABE    | 377 |
| 10 | 2 | ABE-ACC-T4-#3     | ABE    | 377 |
| 10 | 3 | ABE-ACC-T4-#3     | ABE    | 377 |
| 10 | 4 | ABE-ACC-T4-#3     | ABE    | 377 |
| 10 | 0 | ABE-ALS-T2-#1     | ABE    | 295 |
| 10 | 1 | ABE-ALS-T2-#1     | ABE    | 310 |
| 10 | 2 | ABE-ALS-T2-#1     | ABE    | 294 |
| 10 | 3 | ABE-ALS-T2-#1     | ABE    | 309 |
| 10 | 4 | ABE-ALS-T2-#1     | ABE    | 309 |
| 10 | 0 | ABE-ALS-T2-#2     | ABE    | 260 |
| 10 | 1 | ABE-ALS-T2-#2     | ABE    | 276 |
| 10 | 2 | ABE-ALS-T2-#2     | ABE    | 260 |
| 10 | 3 | ABE-ALS-T2-#2     | ABE    | 276 |
| 10 | 4 | ABE-ALS-T2-#2     | ABE    | 276 |
| 10 | 0 | ABE-CDC48-T1-#1   | ABE    | 294 |

|    |   |                 |     |     |
|----|---|-----------------|-----|-----|
| 10 | 1 | ABE-CDC48-T1-#1 | ABE | 295 |
| 10 | 2 | ABE-CDC48-T1-#1 | ABE | 293 |
| 10 | 3 | ABE-CDC48-T1-#1 | ABE | 293 |
| 10 | 4 | ABE-CDC48-T1-#1 | ABE | 293 |
| 10 | 0 | ABE-CDC48-T1-#2 | ABE | 334 |
| 10 | 1 | ABE-CDC48-T1-#2 | ABE | 334 |
| 10 | 2 | ABE-CDC48-T1-#2 | ABE | 334 |
| 10 | 3 | ABE-CDC48-T1-#2 | ABE | 334 |
| 10 | 4 | ABE-CDC48-T1-#2 | ABE | 334 |
| 10 | 0 | ABE-CDC48-T1-#3 | ABE | 274 |
| 10 | 1 | ABE-CDC48-T1-#3 | ABE | 276 |
| 10 | 2 | ABE-CDC48-T1-#3 | ABE | 274 |
| 10 | 3 | ABE-CDC48-T1-#3 | ABE | 274 |
| 10 | 4 | ABE-CDC48-T1-#3 | ABE | 274 |
| 10 | 0 | ABE-CDC48-T1-#4 | ABE | 267 |
| 10 | 1 | ABE-CDC48-T1-#4 | ABE | 267 |
| 10 | 2 | ABE-CDC48-T1-#4 | ABE | 266 |
| 10 | 3 | ABE-CDC48-T1-#4 | ABE | 267 |
| 10 | 4 | ABE-CDC48-T1-#4 | ABE | 266 |
| 10 | 0 | ABE-CDC48-T1-#5 | ABE | 397 |
| 10 | 1 | ABE-CDC48-T1-#5 | ABE | 397 |
| 10 | 2 | ABE-CDC48-T1-#5 | ABE | 397 |
| 10 | 3 | ABE-CDC48-T1-#5 | ABE | 397 |
| 10 | 4 | ABE-CDC48-T1-#5 | ABE | 398 |
| 10 | 0 | ABE-CDC48-T1-#6 | ABE | 330 |
| 10 | 1 | ABE-CDC48-T1-#6 | ABE | 320 |
| 10 | 2 | ABE-CDC48-T1-#6 | ABE | 325 |
| 10 | 3 | ABE-CDC48-T1-#6 | ABE | 320 |
| 10 | 4 | ABE-CDC48-T1-#6 | ABE | 320 |
| 10 | 0 | ABE-DEP1-T1-#1  | ABE | 345 |
| 10 | 1 | ABE-DEP1-T1-#1  | ABE | 345 |
| 10 | 2 | ABE-DEP1-T1-#1  | ABE | 345 |
| 10 | 3 | ABE-DEP1-T1-#1  | ABE | 345 |
| 10 | 4 | ABE-DEP1-T1-#1  | ABE | 345 |
| 10 | 0 | ABE-DEP1-T1-#2  | ABE | 269 |
| 10 | 1 | ABE-DEP1-T1-#2  | ABE | 257 |
| 10 | 2 | ABE-DEP1-T1-#2  | ABE | 264 |
| 10 | 3 | ABE-DEP1-T1-#2  | ABE | 257 |
| 10 | 4 | ABE-DEP1-T1-#2  | ABE | 257 |
| 10 | 0 | ABE-DEP1-T1-#3  | ABE | 308 |
| 10 | 1 | ABE-DEP1-T1-#3  | ABE | 308 |
| 10 | 2 | ABE-DEP1-T1-#3  | ABE | 308 |
| 10 | 3 | ABE-DEP1-T1-#3  | ABE | 308 |

|    |   |                   |     |     |
|----|---|-------------------|-----|-----|
| 10 | 4 | ABE-DEP1-T1-#3    | ABE | 308 |
| 10 | 0 | ABE-NRT1.1B-T2-#1 | ABE | 234 |
| 10 | 1 | ABE-NRT1.1B-T2-#1 | ABE | 243 |
| 10 | 2 | ABE-NRT1.1B-T2-#1 | ABE | 234 |
| 10 | 3 | ABE-NRT1.1B-T2-#1 | ABE | 242 |
| 10 | 4 | ABE-NRT1.1B-T2-#1 | ABE | 242 |
| 10 | 0 | ABE-NRT1.1B-T2-#2 | ABE | 271 |
| 10 | 1 | ABE-NRT1.1B-T2-#2 | ABE | 258 |
| 10 | 2 | ABE-NRT1.1B-T2-#2 | ABE | 266 |
| 10 | 3 | ABE-NRT1.1B-T2-#2 | ABE | 258 |
| 10 | 4 | ABE-NRT1.1B-T2-#2 | ABE | 258 |
| 10 | 0 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 10 | 1 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 10 | 2 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 10 | 3 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 10 | 4 | ABE-NRT1.1B-T2-#3 | ABE | 182 |
| 10 | 0 | ABE-NRT1.1B-T2-#4 | ABE | 571 |
| 10 | 1 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 10 | 2 | ABE-NRT1.1B-T2-#4 | ABE | 569 |
| 10 | 3 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 10 | 4 | ABE-NRT1.1B-T2-#4 | ABE | 568 |
| 10 | 0 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 10 | 1 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 10 | 2 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 10 | 3 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 10 | 4 | ABE-NRT1.1B-T2-#5 | ABE | 672 |
| 10 | 0 | ABE-sgRNA-#1      | ABE | 294 |
| 10 | 1 | ABE-sgRNA-#1      | ABE | 293 |
| 10 | 2 | ABE-sgRNA-#1      | ABE | 293 |
| 10 | 3 | ABE-sgRNA-#1      | ABE | 293 |
| 10 | 4 | ABE-sgRNA-#1      | ABE | 293 |
| 10 | 0 | ABE-sgRNA-#2      | ABE | 387 |
| 10 | 1 | ABE-sgRNA-#2      | ABE | 385 |
| 10 | 2 | ABE-sgRNA-#2      | ABE | 385 |
| 10 | 3 | ABE-sgRNA-#2      | ABE | 385 |
| 10 | 4 | ABE-sgRNA-#2      | ABE | 385 |
| 10 | 0 | ABE-sgRNA-#3      | ABE | 373 |
| 10 | 1 | ABE-sgRNA-#3      | ABE | 373 |
| 10 | 2 | ABE-sgRNA-#3      | ABE | 373 |
| 10 | 3 | ABE-sgRNA-#3      | ABE | 373 |
| 10 | 4 | ABE-sgRNA-#3      | ABE | 376 |
| 10 | 0 | ABE-sgRNA-#4      | ABE | 222 |
| 10 | 1 | ABE-sgRNA-#4      | ABE | 222 |

|    |   |              |      |     |
|----|---|--------------|------|-----|
| 10 | 2 | ABE-sgRNA-#4 | ABE  | 222 |
| 10 | 3 | ABE-sgRNA-#4 | ABE  | 222 |
| 10 | 4 | ABE-sgRNA-#4 | ABE  | 271 |
| 10 | 0 | RGN-#1       | Agro | 474 |
| 10 | 1 | RGN-#1       | Agro | 475 |
| 10 | 2 | RGN-#1       | Agro | 474 |
| 10 | 3 | RGN-#1       | Agro | 474 |
| 10 | 4 | RGN-#1       | Agro | 474 |
| 10 | 0 | RGN-#2       | Agro | 434 |
| 10 | 1 | RGN-#2       | Agro | 435 |
| 10 | 2 | RGN-#2       | Agro | 434 |
| 10 | 3 | RGN-#2       | Agro | 435 |
| 10 | 4 | RGN-#2       | Agro | 435 |
| 10 | 0 | RGN-#3       | Agro | 259 |
| 10 | 1 | RGN-#3       | Agro | 244 |
| 10 | 2 | RGN-#3       | Agro | 254 |
| 10 | 3 | RGN-#3       | Agro | 243 |
| 10 | 4 | RGN-#3       | Agro | 243 |
| 10 | 0 | RGN-#4       | Agro | 365 |
| 10 | 1 | RGN-#4       | Agro | 367 |
| 10 | 2 | RGN-#4       | Agro | 365 |
| 10 | 3 | RGN-#4       | Agro | 367 |
| 10 | 4 | RGN-#4       | Agro | 367 |
| 10 | 0 | RGN-#5       | Agro | 242 |
| 10 | 1 | RGN-#5       | Agro | 242 |
| 10 | 2 | RGN-#5       | Agro | 242 |
| 10 | 3 | RGN-#5       | Agro | 242 |
| 10 | 4 | RGN-#5       | Agro | 242 |
| 10 | 0 | RGN-#6       | Agro | 299 |
| 10 | 1 | RGN-#6       | Agro | 309 |
| 10 | 2 | RGN-#6       | Agro | 299 |
| 10 | 3 | RGN-#6       | Agro | 307 |
| 10 | 4 | RGN-#6       | Agro | 307 |
| 10 | 0 | RGN-#7       | Agro | 290 |
| 10 | 1 | RGN-#7       | Agro | 291 |
| 10 | 2 | RGN-#7       | Agro | 289 |
| 10 | 3 | RGN-#7       | Agro | 290 |
| 10 | 4 | RGN-#7       | Agro | 289 |
| 10 | 0 | RGN-#8       | Agro | 424 |
| 10 | 1 | RGN-#8       | Agro | 428 |
| 10 | 2 | RGN-#8       | Agro | 424 |
| 10 | 3 | RGN-#8       | Agro | 426 |
| 10 | 4 | RGN-#8       | Agro | 425 |

|    |   |               |      |     |
|----|---|---------------|------|-----|
| 10 | 0 | RGN-#9        | Agro | 272 |
| 10 | 1 | RGN-#9        | Agro | 272 |
| 10 | 2 | RGN-#9        | Agro | 272 |
| 10 | 3 | RGN-#9        | Agro | 271 |
| 10 | 4 | RGN-#9        | Agro | 271 |
| 10 | 0 | CBE-ACC-T1-#1 | CBE  | 461 |
| 10 | 1 | CBE-ACC-T1-#1 | CBE  | 460 |
| 10 | 2 | CBE-ACC-T1-#1 | CBE  | 460 |
| 10 | 3 | CBE-ACC-T1-#1 | CBE  | 460 |
| 10 | 4 | CBE-ACC-T1-#1 | CBE  | 460 |
| 10 | 0 | CBE-ACC-T1-#2 | CBE  | 646 |
| 10 | 1 | CBE-ACC-T1-#2 | CBE  | 646 |
| 10 | 2 | CBE-ACC-T1-#2 | CBE  | 646 |
| 10 | 3 | CBE-ACC-T1-#2 | CBE  | 646 |
| 10 | 4 | CBE-ACC-T1-#2 | CBE  | 646 |
| 10 | 0 | CBE-ACC-T2-#1 | CBE  | 608 |
| 10 | 1 | CBE-ACC-T2-#1 | CBE  | 610 |
| 10 | 2 | CBE-ACC-T2-#1 | CBE  | 608 |
| 10 | 3 | CBE-ACC-T2-#1 | CBE  | 608 |
| 10 | 4 | CBE-ACC-T2-#1 | CBE  | 608 |
| 10 | 0 | CBE-ACC-T2-#2 | CBE  | 559 |
| 10 | 1 | CBE-ACC-T2-#2 | CBE  | 559 |
| 10 | 2 | CBE-ACC-T2-#2 | CBE  | 559 |
| 10 | 3 | CBE-ACC-T2-#2 | CBE  | 559 |
| 10 | 4 | CBE-ACC-T2-#2 | CBE  | 559 |
| 10 | 0 | CBE-ACC-T2-#3 | CBE  | 603 |
| 10 | 1 | CBE-ACC-T2-#3 | CBE  | 601 |
| 10 | 2 | CBE-ACC-T2-#3 | CBE  | 601 |
| 10 | 3 | CBE-ACC-T2-#3 | CBE  | 601 |
| 10 | 4 | CBE-ACC-T2-#3 | CBE  | 601 |
| 10 | 0 | CBE-ACC-T3-#1 | CBE  | 440 |
| 10 | 1 | CBE-ACC-T3-#1 | CBE  | 429 |
| 10 | 2 | CBE-ACC-T3-#1 | CBE  | 435 |
| 10 | 3 | CBE-ACC-T3-#1 | CBE  | 429 |
| 10 | 4 | CBE-ACC-T3-#1 | CBE  | 429 |
| 10 | 0 | CBE-ACC-T3-#2 | CBE  | 473 |
| 10 | 1 | CBE-ACC-T3-#2 | CBE  | 494 |
| 10 | 2 | CBE-ACC-T3-#2 | CBE  | 473 |
| 10 | 3 | CBE-ACC-T3-#2 | CBE  | 494 |
| 10 | 4 | CBE-ACC-T3-#2 | CBE  | 495 |
| 10 | 0 | CBE-ACC-T3-#3 | CBE  | 317 |
| 10 | 1 | CBE-ACC-T3-#3 | CBE  | 306 |
| 10 | 2 | CBE-ACC-T3-#3 | CBE  | 312 |

|    |   |                   |     |     |
|----|---|-------------------|-----|-----|
| 10 | 3 | CBE-ACC-T3-#3     | CBE | 306 |
| 10 | 4 | CBE-ACC-T3-#3     | CBE | 307 |
| 10 | 0 | CBE-ALS-T1-#1     | CBE | 480 |
| 10 | 1 | CBE-ALS-T1-#1     | CBE | 480 |
| 10 | 2 | CBE-ALS-T1-#1     | CBE | 480 |
| 10 | 3 | CBE-ALS-T1-#1     | CBE | 480 |
| 10 | 4 | CBE-ALS-T1-#1     | CBE | 481 |
| 10 | 0 | CBE-ALS-T1-#2     | CBE | 516 |
| 10 | 1 | CBE-ALS-T1-#2     | CBE | 514 |
| 10 | 2 | CBE-ALS-T1-#2     | CBE | 515 |
| 10 | 3 | CBE-ALS-T1-#2     | CBE | 514 |
| 10 | 4 | CBE-ALS-T1-#2     | CBE | 514 |
| 10 | 0 | CBE-ALS-T1-#3     | CBE | 404 |
| 10 | 1 | CBE-ALS-T1-#3     | CBE | 395 |
| 10 | 2 | CBE-ALS-T1-#3     | CBE | 395 |
| 10 | 3 | CBE-ALS-T1-#3     | CBE | 395 |
| 10 | 4 | CBE-ALS-T1-#3     | CBE | 396 |
| 10 | 0 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 10 | 1 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 10 | 2 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 10 | 3 | CBE-NRT1.1B-T1-#1 | CBE | 380 |
| 10 | 4 | CBE-NRT1.1B-T1-#1 | CBE | 382 |
| 10 | 0 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 10 | 1 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 10 | 2 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 10 | 3 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 10 | 4 | CBE-NRT1.1B-T1-#2 | CBE | 474 |
| 10 | 0 | CBE-NRT1.1B-T1-#3 | CBE | 726 |
| 10 | 1 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 10 | 2 | CBE-NRT1.1B-T1-#3 | CBE | 714 |
| 10 | 3 | CBE-NRT1.1B-T1-#3 | CBE | 714 |
| 10 | 4 | CBE-NRT1.1B-T1-#3 | CBE | 713 |
| 10 | 0 | CBE-sgRNA-#1      | CBE | 955 |
| 10 | 1 | CBE-sgRNA-#1      | CBE | 954 |
| 10 | 2 | CBE-sgRNA-#1      | CBE | 956 |
| 10 | 3 | CBE-sgRNA-#1      | CBE | 954 |
| 10 | 4 | CBE-sgRNA-#1      | CBE | 954 |
| 10 | 0 | CBE-sgRNA-#2      | CBE | 511 |
| 10 | 1 | CBE-sgRNA-#2      | CBE | 512 |
| 10 | 2 | CBE-sgRNA-#2      | CBE | 510 |
| 10 | 3 | CBE-sgRNA-#2      | CBE | 510 |
| 10 | 4 | CBE-sgRNA-#2      | CBE | 510 |
| 10 | 0 | CBE-sgRNA-#3      | CBE | 439 |

|    |   |                   |        |     |
|----|---|-------------------|--------|-----|
| 10 | 1 | CBE-sgRNA-#3      | CBE    | 440 |
| 10 | 2 | CBE-sgRNA-#3      | CBE    | 439 |
| 10 | 3 | CBE-sgRNA-#3      | CBE    | 439 |
| 10 | 4 | CBE-sgRNA-#3      | CBE    | 438 |
| 10 | 0 | CBE-sgRNA-#4      | CBE    | 340 |
| 10 | 1 | CBE-sgRNA-#4      | CBE    | 341 |
| 10 | 2 | CBE-sgRNA-#4      | CBE    | 340 |
| 10 | 3 | CBE-sgRNA-#4      | CBE    | 340 |
| 10 | 4 | CBE-sgRNA-#4      | CBE    | 340 |
| 10 | 0 | CBE-sgRNA-#5      | CBE    | 497 |
| 10 | 1 | CBE-sgRNA-#5      | CBE    | 497 |
| 10 | 2 | CBE-sgRNA-#5      | CBE    | 497 |
| 10 | 3 | CBE-sgRNA-#5      | CBE    | 497 |
| 10 | 4 | CBE-sgRNA-#5      | CBE    | 497 |
| 10 | 0 | CBE-Wxb-T1-#1     | CBE    | 331 |
| 10 | 1 | CBE-Wxb-T1-#1     | CBE    | 330 |
| 10 | 2 | CBE-Wxb-T1-#1     | CBE    | 331 |
| 10 | 3 | CBE-Wxb-T1-#1     | CBE    | 330 |
| 10 | 4 | CBE-Wxb-T1-#1     | CBE    | 331 |
| 10 | 0 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 10 | 1 | CBE-Wxb-T1-#2     | CBE    | 642 |
| 10 | 2 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 10 | 3 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 10 | 4 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 10 | 0 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 10 | 1 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 10 | 2 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 10 | 3 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 10 | 4 | CBE-Wxb-T1-#3     | CBE    | 347 |
| 10 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 559 |
| 10 | 1 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 10 | 2 | HF1-CBE-ACC-T3-#1 | HF-CBE | 555 |
| 10 | 3 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 10 | 4 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 10 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 10 | 1 | HF1-CBE-ACC-T3-#2 | HF-CBE | 539 |
| 10 | 2 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 10 | 3 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 10 | 4 | HF1-CBE-ACC-T3-#2 | HF-CBE | 539 |
| 10 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 817 |
| 10 | 1 | HF1-CBE-ACC-T3-#3 | HF-CBE | 805 |
| 10 | 2 | HF1-CBE-ACC-T3-#3 | HF-CBE | 806 |
| 10 | 3 | HF1-CBE-ACC-T3-#3 | HF-CBE | 804 |

|    |   |                   |        |     |
|----|---|-------------------|--------|-----|
| 10 | 4 | HF1-CBE-ACC-T3-#3 | HF-CBE | 804 |
| 10 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 455 |
| 10 | 1 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 10 | 2 | HF1-CBE-ALS-T1-#1 | HF-CBE | 450 |
| 10 | 3 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 10 | 4 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 10 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 10 | 1 | HF1-CBE-ALS-T1-#2 | HF-CBE | 489 |
| 10 | 2 | HF1-CBE-ALS-T1-#2 | HF-CBE | 490 |
| 10 | 3 | HF1-CBE-ALS-T1-#2 | HF-CBE | 489 |
| 10 | 4 | HF1-CBE-ALS-T1-#2 | HF-CBE | 489 |
| 10 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 657 |
| 10 | 1 | HF1-CBE-ALS-T1-#3 | HF-CBE | 658 |
| 10 | 2 | HF1-CBE-ALS-T1-#3 | HF-CBE | 657 |
| 10 | 3 | HF1-CBE-ALS-T1-#3 | HF-CBE | 658 |
| 10 | 4 | HF1-CBE-ALS-T1-#3 | HF-CBE | 660 |
| 10 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 10 | 1 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 10 | 2 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 10 | 3 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 10 | 4 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 10 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 624 |
| 10 | 1 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 10 | 2 | HF1-CBE-sgRNA-#2  | HF-CBE | 624 |
| 10 | 3 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 10 | 4 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 10 | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 299 |
| 10 | 1 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 298 |
| 10 | 2 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 298 |
| 10 | 3 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 298 |
| 10 | 4 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 310 |
| 10 | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 10 | 1 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 10 | 2 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 10 | 3 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 10 | 4 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 790 |
| 10 | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |
| 10 | 1 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 10 | 2 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |
| 10 | 3 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 10 | 4 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 929 |
| 12 | 0 | ABE-ACC-T4-#1     | ABE    | 355 |
| 12 | 0 | ABE-ACC-T4-#2     | ABE    | 262 |

|    |   |                   |      |     |
|----|---|-------------------|------|-----|
| 12 | 0 | ABE-ACC-T4-#3     | ABE  | 377 |
| 12 | 0 | ABE-ALS-T2-#1     | ABE  | 294 |
| 12 | 0 | ABE-ALS-T2-#2     | ABE  | 260 |
| 12 | 0 | ABE-CDC48-T1-#1   | ABE  | 293 |
| 12 | 0 | ABE-CDC48-T1-#2   | ABE  | 334 |
| 12 | 0 | ABE-CDC48-T1-#3   | ABE  | 274 |
| 12 | 0 | ABE-CDC48-T1-#4   | ABE  | 266 |
| 12 | 0 | ABE-CDC48-T1-#5   | ABE  | 397 |
| 12 | 0 | ABE-CDC48-T1-#6   | ABE  | 320 |
| 12 | 0 | ABE-DEP1-T1-#1    | ABE  | 345 |
| 12 | 0 | ABE-DEP1-T1-#2    | ABE  | 257 |
| 12 | 0 | ABE-DEP1-T1-#3    | ABE  | 308 |
| 12 | 0 | ABE-NRT1.1B-T2-#1 | ABE  | 234 |
| 12 | 0 | ABE-NRT1.1B-T2-#2 | ABE  | 258 |
| 12 | 0 | ABE-NRT1.1B-T2-#3 | ABE  | 182 |
| 12 | 0 | ABE-NRT1.1B-T2-#4 | ABE  | 568 |
| 12 | 0 | ABE-NRT1.1B-T2-#5 | ABE  | 672 |
| 12 | 0 | ABE-sgRNA-#1      | ABE  | 293 |
| 12 | 0 | ABE-sgRNA-#2      | ABE  | 385 |
| 12 | 0 | ABE-sgRNA-#3      | ABE  | 373 |
| 12 | 0 | ABE-sgRNA-#4      | ABE  | 222 |
| 12 | 0 | RGN-#1            | Agro | 474 |
| 12 | 0 | RGN-#2            | Agro | 434 |
| 12 | 0 | RGN-#3            | Agro | 243 |
| 12 | 0 | RGN-#4            | Agro | 365 |
| 12 | 0 | RGN-#5            | Agro | 242 |
| 12 | 0 | RGN-#6            | Agro | 299 |
| 12 | 0 | RGN-#7            | Agro | 289 |
| 12 | 0 | RGN-#8            | Agro | 424 |
| 12 | 0 | RGN-#9            | Agro | 270 |
| 12 | 0 | CBE-ACC-T1-#1     | CBE  | 460 |
| 12 | 0 | CBE-ACC-T1-#2     | CBE  | 646 |
| 12 | 0 | CBE-ACC-T2-#1     | CBE  | 608 |
| 12 | 0 | CBE-ACC-T2-#2     | CBE  | 559 |
| 12 | 0 | CBE-ACC-T2-#3     | CBE  | 601 |
| 12 | 0 | CBE-ACC-T3-#1     | CBE  | 429 |
| 12 | 0 | CBE-ACC-T3-#2     | CBE  | 473 |
| 12 | 0 | CBE-ACC-T3-#3     | CBE  | 306 |
| 12 | 0 | CBE-ALS-T1-#1     | CBE  | 480 |
| 12 | 0 | CBE-ALS-T1-#2     | CBE  | 514 |
| 12 | 0 | CBE-ALS-T1-#3     | CBE  | 395 |
| 12 | 0 | CBE-NRT1.1B-T1-#1 | CBE  | 380 |
| 12 | 0 | CBE-NRT1.1B-T1-#2 | CBE  | 473 |

|    |   |                   |        |     |
|----|---|-------------------|--------|-----|
| 12 | 0 | CBE-NRT1.1B-T1-#3 | CBE    | 713 |
| 12 | 0 | CBE-sgRNA-#1      | CBE    | 954 |
| 12 | 0 | CBE-sgRNA-#2      | CBE    | 510 |
| 12 | 0 | CBE-sgRNA-#3      | CBE    | 438 |
| 12 | 0 | CBE-sgRNA-#4      | CBE    | 340 |
| 12 | 0 | CBE-sgRNA-#5      | CBE    | 497 |
| 12 | 0 | CBE-Wxb-T1-#1     | CBE    | 330 |
| 12 | 0 | CBE-Wxb-T1-#2     | CBE    | 639 |
| 12 | 0 | CBE-Wxb-T1-#3     | CBE    | 346 |
| 12 | 0 | HF1-CBE-ACC-T3-#1 | HF-CBE | 549 |
| 12 | 0 | HF1-CBE-ACC-T3-#2 | HF-CBE | 538 |
| 12 | 0 | HF1-CBE-ACC-T3-#3 | HF-CBE | 804 |
| 12 | 0 | HF1-CBE-ALS-T1-#1 | HF-CBE | 446 |
| 12 | 0 | HF1-CBE-ALS-T1-#2 | HF-CBE | 489 |
| 12 | 0 | HF1-CBE-ALS-T1-#3 | HF-CBE | 657 |
| 12 | 0 | HF1-CBE-sgRNA-#1  | HF-CBE | 841 |
| 12 | 0 | HF1-CBE-sgRNA-#2  | HF-CBE | 623 |
| 12 | 0 | HF1-CBE-Wxb-T1-#1 | HF-CBE | 298 |
| 12 | 0 | HF1-CBE-Wxb-T1-#2 | HF-CBE | 778 |
| 12 | 0 | HF1-CBE-Wxb-T1-#3 | HF-CBE | 928 |

**Supplementary Table 3.** Summary of SNVs belonging to different sub-mutation types in individual plants. Adapted from Jin et al.<sup>1</sup>

| Sample name       | SNVs counts of different mutation types |     |     |     |     |     |     |     |     |     |     |     |
|-------------------|-----------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | A>C                                     | A>G | A>T | C>A | C>G | C>T | G>A | G>C | G>T | T>A | T>C | T>G |
| Control-#1        | 4                                       | 13  | 17  | 88  | 30  | 61  | 87  | 21  | 102 | 26  | 16  | 9   |
| Control-#2        | 10                                      | 16  | 18  | 61  | 29  | 78  | 65  | 34  | 70  | 20  | 24  | 9   |
| Control-#3        | 5                                       | 10  | 18  | 61  | 12  | 27  | 25  | 10  | 50  | 9   | 11  | 5   |
| Control-#4        | 9                                       | 12  | 23  | 72  | 22  | 54  | 51  | 23  | 59  | 17  | 17  | 6   |
| Control-#5        | 4                                       | 13  | 11  | 39  | 9   | 41  | 47  | 11  | 38  | 17  | 12  | 0   |
| Control-#6        | 0                                       | 13  | 9   | 66  | 20  | 43  | 40  | 21  | 66  | 7   | 9   | 5   |
| Control-#7        | 3                                       | 14  | 18  | 69  | 16  | 33  | 49  | 14  | 47  | 15  | 10  | 1   |
| Control-#8        | 7                                       | 18  | 16  | 64  | 20  | 76  | 85  | 17  | 64  | 31  | 13  | 13  |
| Control-#9        | 2                                       | 16  | 14  | 49  | 15  | 43  | 36  | 19  | 51  | 8   | 11  | 6   |
| CBE-ACC-T1-#1     | 4                                       | 20  | 19  | 56  | 26  | 103 | 111 | 17  | 53  | 20  | 19  | 12  |
| CBE-ACC-T1-#2     | 6                                       | 18  | 24  | 133 | 35  | 95  | 82  | 33  | 165 | 34  | 15  | 7   |
| CBE-ACC-T2-#1     | 7                                       | 18  | 18  | 150 | 30  | 85  | 71  | 40  | 142 | 21  | 22  | 4   |
| CBE-ACC-T2-#2     | 7                                       | 27  | 18  | 102 | 38  | 85  | 93  | 31  | 116 | 25  | 10  | 7   |
| CBE-ACC-T2-#3     | 9                                       | 19  | 29  | 126 | 38  | 109 | 99  | 27  | 106 | 24  | 10  | 6   |
| CBE-ACC-T3-#1     | 7                                       | 13  | 9   | 40  | 17  | 109 | 134 | 24  | 49  | 10  | 12  | 5   |
| CBE-ACC-T3-#2     | 7                                       | 12  | 15  | 59  | 31  | 106 | 113 | 23  | 62  | 20  | 19  | 6   |
| CBE-ACC-T3-#3     | 9                                       | 14  | 12  | 60  | 22  | 33  | 28  | 19  | 71  | 12  | 22  | 4   |
| CBE-ALS-T1-#1     | 7                                       | 15  | 13  | 62  | 32  | 116 | 111 | 20  | 62  | 18  | 16  | 8   |
| CBE-ALS-T1-#2     | 10                                      | 11  | 21  | 81  | 28  | 92  | 91  | 36  | 89  | 22  | 21  | 12  |
| CBE-ALS-T1-#3     | 9                                       | 19  | 9   | 49  | 19  | 79  | 78  | 21  | 68  | 17  | 21  | 6   |
| CBE-NRT1.1B-T1-#1 | 7                                       | 15  | 9   | 58  | 21  | 88  | 79  | 27  | 58  | 3   | 11  | 4   |

|                   |    |    |    |     |    |     |     |    |     |    |    |    |
|-------------------|----|----|----|-----|----|-----|-----|----|-----|----|----|----|
| CBE-NRT1.1B-T1-#2 | 8  | 16 | 16 | 79  | 25 | 95  | 109 | 27 | 64  | 12 | 13 | 9  |
| CBE-NRT1.1B-T1-#3 | 7  | 23 | 23 | 137 | 44 | 116 | 128 | 39 | 142 | 28 | 17 | 9  |
| CBE-Wxb-T1-#1     | 6  | 5  | 13 | 62  | 28 | 58  | 46  | 14 | 65  | 15 | 11 | 7  |
| CBE-Wxb-T1-#2     | 1  | 13 | 17 | 124 | 24 | 72  | 104 | 43 | 207 | 14 | 13 | 7  |
| CBE-Wxb-T1-#3     | 7  | 13 | 10 | 38  | 14 | 91  | 81  | 12 | 39  | 9  | 8  | 24 |
| CBE-sgRNA-#1      | 13 | 11 | 15 | 64  | 31 | 296 | 379 | 26 | 78  | 16 | 15 | 10 |
| CBE-sgRNA-#2      | 12 | 25 | 21 | 103 | 36 | 72  | 66  | 31 | 99  | 20 | 16 | 9  |
| CBE-sgRNA-#3      | 10 | 11 | 16 | 57  | 30 | 93  | 84  | 25 | 66  | 18 | 22 | 6  |
| CBE-sgRNA-#4      | 7  | 13 | 16 | 47  | 24 | 67  | 54  | 15 | 54  | 22 | 16 | 5  |
| CBE-sgRNA-#5      | 14 | 15 | 11 | 52  | 16 | 107 | 167 | 21 | 44  | 27 | 11 | 12 |
| HF1-CBE-ACC-T3-#1 | 6  | 13 | 10 | 56  | 26 | 183 | 148 | 17 | 55  | 15 | 15 | 5  |
| HF1-CBE-ACC-T3-#2 | 9  | 12 | 27 | 83  | 37 | 115 | 123 | 33 | 62  | 19 | 13 | 5  |
| HF1-CBE-ACC-T3-#3 | 16 | 19 | 14 | 50  | 22 | 267 | 286 | 20 | 69  | 14 | 10 | 17 |
| HF1-CBE-ALS-T1-#1 | 12 | 11 | 15 | 57  | 23 | 114 | 98  | 20 | 63  | 16 | 10 | 7  |
| HF1-CBE-ALS-T1-#2 | 9  | 13 | 17 | 51  | 30 | 110 | 125 | 24 | 66  | 17 | 14 | 13 |
| HF1-CBE-ALS-T1-#3 | 11 | 16 | 24 | 84  | 31 | 162 | 172 | 36 | 68  | 21 | 16 | 16 |
| HF1-CBE-Wxb-T1-#1 | 7  | 11 | 15 | 53  | 21 | 48  | 38  | 18 | 58  | 15 | 8  | 6  |
| HF1-CBE-Wxb-T1-#2 | 17 | 24 | 26 | 107 | 36 | 198 | 205 | 36 | 74  | 22 | 25 | 11 |
| HF1-CBE-Wxb-T1-#3 | 14 | 14 | 18 | 85  | 27 | 291 | 301 | 32 | 92  | 21 | 17 | 16 |
| HF1-CBE-sgRNA-#1  | 8  | 12 | 14 | 94  | 39 | 275 | 256 | 35 | 71  | 20 | 6  | 11 |
| HF1-CBE-sgRNA-#2  | 11 | 14 | 11 | 82  | 37 | 157 | 148 | 43 | 83  | 18 | 10 | 9  |
| ABE-ACC-T4-#1     | 7  | 13 | 14 | 57  | 23 | 51  | 58  | 24 | 69  | 22 | 12 | 5  |
| ABE-ACC-T4-#2     | 2  | 14 | 14 | 50  | 17 | 38  | 41  | 15 | 50  | 6  | 10 | 5  |
| ABE-ACC-T4-#3     | 9  | 17 | 14 | 84  | 28 | 46  | 47  | 23 | 71  | 10 | 16 | 12 |

|                   |    |    |    |     |    |     |     |    |     |    |    |    |
|-------------------|----|----|----|-----|----|-----|-----|----|-----|----|----|----|
| ABE-ALS-T2-#1     | 3  | 9  | 11 | 59  | 21 | 43  | 36  | 12 | 65  | 17 | 11 | 7  |
| ABE-ALS-T2-#2     | 5  | 12 | 15 | 39  | 13 | 36  | 42  | 18 | 58  | 10 | 10 | 2  |
| ABE-CDC48-T1-#1   | 2  | 14 | 14 | 59  | 16 | 36  | 34  | 24 | 58  | 13 | 19 | 4  |
| ABE-CDC48-T1-#2   | 7  | 14 | 15 | 61  | 15 | 40  | 46  | 20 | 79  | 11 | 17 | 9  |
| ABE-CDC48-T1-#3   | 4  | 9  | 13 | 57  | 8  | 35  | 49  | 16 | 52  | 9  | 14 | 8  |
| ABE-CDC48-T1-#4   | 5  | 9  | 17 | 49  | 15 | 35  | 48  | 15 | 50  | 13 | 9  | 1  |
| ABE-CDC48-T1-#5   | 5  | 17 | 16 | 78  | 26 | 55  | 51  | 28 | 74  | 19 | 19 | 9  |
| ABE-CDC48-T1-#6   | 7  | 13 | 13 | 60  | 27 | 33  | 40  | 16 | 71  | 19 | 15 | 6  |
| ABE-DEP1-T1-#1    | 7  | 10 | 15 | 73  | 18 | 37  | 57  | 20 | 72  | 18 | 12 | 6  |
| ABE-DEP1-T1-#2    | 7  | 7  | 15 | 51  | 17 | 30  | 28  | 14 | 48  | 16 | 15 | 9  |
| ABE-DEP1-T1-#3    | 1  | 18 | 16 | 66  | 15 | 42  | 33  | 16 | 62  | 19 | 14 | 6  |
| ABE-NRT1.1B-T2-#1 | 2  | 12 | 5  | 47  | 14 | 30  | 30  | 12 | 44  | 13 | 19 | 6  |
| ABE-NRT1.1B-T2-#2 | 5  | 15 | 11 | 43  | 12 | 50  | 48  | 12 | 34  | 11 | 11 | 6  |
| ABE-NRT1.1B-T2-#3 | 5  | 13 | 11 | 25  | 8  | 19  | 24  | 10 | 36  | 12 | 17 | 2  |
| ABE-NRT1.1B-T2-#4 | 7  | 13 | 27 | 129 | 30 | 60  | 55  | 49 | 145 | 22 | 17 | 14 |
| ABE-NRT1.1B-T2-#5 | 12 | 14 | 20 | 135 | 47 | 104 | 115 | 59 | 96  | 27 | 29 | 14 |
| ABE-sgRNA-#1      | 7  | 17 | 18 | 55  | 21 | 40  | 30  | 29 | 49  | 15 | 9  | 3  |
| ABE-sgRNA-#2      | 15 | 13 | 16 | 76  | 27 | 60  | 61  | 22 | 60  | 17 | 9  | 9  |
| ABE-sgRNA-#3      | 7  | 20 | 21 | 82  | 27 | 42  | 45  | 18 | 61  | 18 | 21 | 11 |
| ABE-sgRNA-#4      | 4  | 7  | 10 | 49  | 19 | 26  | 24  | 13 | 44  | 12 | 10 | 4  |

**Supplementary Table 4.** Summary of off-target sites identified by WGS and Cas-OFFinder. Adapted from Jin et al.<sup>1</sup>.

| sgRNA   |              | 0 mismatches<br>(on target) | 1 nucleotide<br>mismatches | 2 nucleotide<br>mismatches | 3 nucleotide<br>mismatches | 4 nucleotide<br>mismatches | 5 nucleotide<br>mismatches |
|---------|--------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| CBE     | OsACC-T1     | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/16                       | 0/153                      |
|         | OsACC-T2     | 1/1                         | 0/0                        | 0/1                        | 0/18                       | 0/21                       | 0/95                       |
|         | OsACC-T3     | 1/1                         | 0/0                        | 0/0                        | 0/1                        | 0/20                       | 0/121                      |
|         | OsALS-T1     | 1/1                         | <b><u>1/1</u></b>          | <b><u>1/1</u></b>          | 0/0                        | 0/8                        | 0/92                       |
|         | OsNRT1.1B-T1 | 1/1                         | 0/0                        | 0/10                       | 0/172                      | <b><u>1/1069</u></b>       | 0/4236                     |
|         | OsWxb-T1     | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/4                        | 0/54                       |
| HF1-CBE | OsACC-T3     | 1/1                         | 0/0                        | 0/0                        | 0/1                        | 0/20                       | 0/121                      |
|         | OsALS-T1     | 1/1                         | 0/1                        | 0/1                        | 0/0                        | 0/8                        | 0/92                       |
|         | OsWxb-T1     | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/4                        | 0/54                       |
| ABE     | OsACC-T4     | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/3                        | 0/49                       |
|         | OsALS-T2     | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/6                        | 0/50                       |
|         | OsCDC48-T1   | 1/1                         | 0/0                        | 0/0                        | 0/0                        | 0/24                       | 0/167                      |
|         | OsDEP1-T1    | 1/1                         | 0/0                        | 0/0                        | 0/2                        | 0/36                       | 0/280                      |
|         | OsNRT1.1B-T2 | 1/1                         | 0/0                        | 0/0                        | 0/2                        | 0/8                        | 0/171                      |

1. Jin, S. et al. Cytosine, but not adenine, base editors induce genome-wide off-target mutations in rice. *Science* **364**, 292-295 (2019).