


sgRNA

|          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |   |          |   |          |          |   |   |   |   |   |                 |                    |                 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|----------|---|----------|----------|---|---|---|---|---|-----------------|--------------------|-----------------|
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | G        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 41.80% (102 reads) |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 21.72% (53 reads)  |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | -        | -        | -        | -        | -        | -        | -        | -        | -        | G        | A        | G        | G | A        | A | A        | G        | G | A | A | G | - | 3.28% (8 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | -        | -        | -        | -        | -        | -        | -        | T        | G        | G        | C        | A        | G        | A        | G        | G | A        | A | A        | G        | G | A | A | G | - | 2.46% (6 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 2.05% (5 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | -        | T        | G        | A        | T        | G        | G        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 1.64% (4 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>G</b> | T        | G        | A        | T        | G        | G        | C        | A        | G        | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 1.64% (4 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>T</b> | T        | G        | A        | T        | G        | G        | C        | A        | G        | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 1.23% (3 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | <b>A</b> | -        | -        | -        | -        | -        | -        | -        | -        | -        | A        | G        | G | A        | A | A        | G        | G | A | A | G | - | 1.23% (3 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | -        | -        | T        | G        | A        | T        | G        | G        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 1.23% (3 reads)    |                 |
| -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.82% (2 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>C</b> | T        | G        | A        | T        | G        | G        | C        | A        | G        | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 0.82% (2 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | -        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.82% (2 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | G        | A        | T        | G        | G        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.82% (2 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | G        | C        | A        | G        | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.82% (2 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>T</b> | T        | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 0.82% (2 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | -        | -        | A        | G        | G | A        | A | A        | G        | G | A | A | G | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>G</b> | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>A</b> | T        | G        | A        | T        | G        | G        | C        | A        | G        | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 0.41% (1 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>G</b> | T        | C        | T        | T        | T        | G        | T        | A        | G        | T | C        | G | C        | T        | C | G | A | G | A | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>A</b> | C        | G        | T        | G        | A        | T        | G        | G        | C        | A | <b>A</b> | A | G        | G        | A | A | A | G | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | <b>G</b> | T        | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A | G        | G | A        | A        | A | G | G | A | A | G               | -                  | 0.41% (1 reads) |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | <b>A</b> | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | G        | C        | A        | <b>A</b> | A        | G | G        | A | <b>G</b> | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | G        | C        | A        | G        | A        | G | G        | A | A        | <b>C</b> | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | T        | G        | A        | T        | G        | G        | C        | <b>G</b> | <b>A</b> | A        | G | G        | A | A        | A        | G | G | A | A | G | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | <b>T</b> | <b>G</b> | <b>G</b> | <b>G</b> | <b>C</b> | <b>C</b> | <b>T</b> | <b>C</b> | T        | G        | A        | T | G        | G | C        | A        | G | A | G | G | A | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | -        | -        | <b>C</b> | G        | G | A        | A | A        | G        | G | A | A | G | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | <b>A</b> | <b>T</b> | <b>C</b> | <b>C</b> | <b>T</b> | <b>C</b> | <b>C</b> | <b>T</b> | <b>A</b> | T        | C        | T        | G | A        | C | A        | T        | A | C | T | G | A | -               | 0.41% (1 reads)    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | G | A        | A | A        | G        | G | A | A | G | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | -               | 0.41% (1 reads)    |                 |
| -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| <b>A</b> | <b>C</b> | <b>G</b> | <b>T</b> | <b>C</b> | <b>A</b> | <b>A</b> | <b>T</b> | <b>A</b> | <b>G</b> | <b>G</b> | <b>G</b> | <b>G</b> | <b>G</b> | <b>C</b> | <b>G</b> | <b>T</b> | <b>A</b> | <b>C</b> | <b>T</b> | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | C        | A        | C        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |
| T        | G        | G        | G        | G        | C        | C        | C        | A        | G        | A        | C        | T        | G        | A        | G        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | -        | - | -        | - | -        | -        | - | - | - | - | - | 0.41% (1 reads) |                    |                 |

**bold** Substitutions  
 Insertions  
 - Deletions  
 ----- Predicted cleavage position