

## Figure 1-figure supplement 1

### A. *Rtnl1*<sup>1</sup> mutant sequence

GCGTCTATNTATCGTTTCTTCTATTTCCCTCACTATATATGCTTTTTCCAAGGGAAATTCCGTTTCATTTCGATTTTCAGCTGGCCATGCG  
GTCGGCCCTCATATCTAGCCAAACCCTATATGTACATTTATATGAACATATA

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Query: 15 TTTCTTCTTA-TTTCCTCACTATATATGCTTTTT 48  
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Subject: 4993903 TTTCTTCTTAATTTCCCTCACTATATATGCTTTTT 4993937

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Query: 49 CCAAGGGAAATTCCGTTTCATTTCGATTTTCAGCTGGCCATGCGGTCGGCCCTCATATCTA 108  
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Subject: 4999086 CCAAGGGAAATTCCGTTTCATTTCGATTTTCAGCTGGCCATGCGGTCGGCCCTCATATCTA 4999145

Query: 109 GCCAAACCCTATATGTACATTTATATGAACATATA 143  
|||||  
Subject: 4999146 GCCAAACCCTATATGTACATTTATATGAACATATA 4999180

### B. *ReepA*<sup>541</sup> mutant sequence

TTCAATATCTTGATACTGAGGTGCTATTTTCTTGAACGCCTCTGTCGCAACATTCGGAAGTGC GGCGCATTCCTACGTGTAAACCATGATG  
AAATAACAACAAACCCATGTCAAAGATCCCAGATACTCGCCGCAATTCACAACGTGTTTGTACACAATACAGATGTGGGCCAAGTCACTT  
GTGGACTGCAACAGATTTTATGGCATCTGAAGTCAGCAACCA

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Query: 4 AATATCTTGATACTGAGGTGCTATTTTCTTGAACGCCTCTGTCGCAACATTCGGAAGTGC 63  
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Subject: 22926381 AATATCTTGATACTGAGGTGCTATTTTCTTGAACGCCTCTGTCGCAACATTCGGAAGTGC 22926440

Query: 64 GGCGCATTCCTACGTGTAAAC 84  
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Subject: 22926441 GGCGCATTCCTACGTGTAAAC 22926461

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Query: 100 AACAAACCCATGTCAAAGATCCCAGATACTCGCCGCAATTCACAACGTGTTTGTACACAA 159  
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Subject: 22928141 AACAAACCCATGTCAAAGATCCCAGATACTCGCCGCAATTCACAACGTGTTTGTACACAA 22928200

### C. *ReepB*<sup>48</sup> mutant sequence

TATTGAGACGTGGCGCTGTGCGCACACGTGGAGCCAATCTACTCACTCACCTGTGTGCGTTGGTAGAGCTTTCAGTTCGTTTCATGATGAA  
ATAACATAGGTGAGCTTTGCATTCTCACATATAAGAATCTTCTTTTAAATGCTTCAACTCCACATGTAGTGTGCTTCTCATCTGGTGC  
ATGCTGCCACGGAACAGAATGGTTCTACCATCATCTACA

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Query: 1 TATTGAGACGTGGCGCTGTGCGCACACGTGGAGCCAATCTACTCACTCACCTGTGTGCGT 60  
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Subject: 14171258 TATTGAGACGTGGCGCTGTGCGCACACGTGGAGCCAATCTACTCACTCACCTGTGTGCGT 14171317

Query: 61 TGGTAGAGCTTTCAGTTCGTTT 82  
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Subject: 14171318 TGGTAGAGCTTTCAGTTCGTTT 14171339

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Query: 99 AGGTGAGCTTTGCATTCTCACATATAAGAATCTTCTTTTAAATGCTTCAACTCCACATG 158  
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Subject: 14172521 AGGTGAGCTTTGCATTCTCACATATAAGAATCTTCTTTTAAATGCTTCAACTCCACATG 14172580