

Table S3. Oligonucleotides used to generate Dd mutants. Changed codons are in bold. All mutations and constructs were confirmed by DNA sequence analysis.

Mutation	Direction	Sequence (5' – 3')
A38G	Forward	CCCCACTGGAG GGT CCCTTCGTACC
A38G	Reverse	GGTACGAAGGG ACC CTCCAGTGGGG
A38P	Forward	AGCCCCACTGGAG CCT CCCTTCGTACC
A38P	Reverse	GGTACGAAGGG GAGG CTCCAGTGGGGGCT
A47R	Forward	CACGGTACCT GCG TCCTACGGAAGG
A47R	Reverse	CCTTCCGTAGG ACG CAGGTACCGTG
A47G	Forward	CACGGTACCT GGG TCCTACGGAAGG
A47G	Reverse	CCTTCCGTAGG ACC CAGGTACCGTG
⁵⁹ DVA ⁶¹	Forward	CATTCGTTACTCG GACGTGG CTCCCCTGTACGATACCACC
⁵⁹ DVA ⁶¹	Reverse	GGTGGTATCGTACAGGGG GAGCCACGT CCGAGTAACGAATG
D100R	Forward	CGGTGGTGCAGAA CAATCG TTTTACCCCCACGGAGGC
D100R	Reverse	GCCTCCGTGGGGG TAAAACG ATTGTTCTGCACCACCG
R425E	Forward	CAAGACCCAGTCACCT TCGAG TCCACAAGACAAGTCAAC
R425E	Reverse	GTTGACTTGTCTTGTGG ACT CGAAGGTGACTGGGTCTTG
R428S	Forward	CACCTTCCGCTCCACAT CCCA AGTCAACA ACT ACC
R428S	Reverse	GGTAGTTGTTGACTT GGG ATGTGGAGCGGAAGGTG
Pb-9	Forward	GAGAATTCATGGGAGCGGTGGTG
Pb-9	Reverse	GTTTCAGGTT CAGGGGG GAGG
Pb-40	Forward	CGGAATTCTATGTT CGTAC CCCCACGGT
Pb-40	Reverse	GTTTCAGGTT CAGGGGG GAGG
Pb-42	Forward	TAGAATTCATGCCCCACGGTACCTGGC
Pb-42	Reverse	GTTTCAGGTT CAGGGGG GAGG
Pb-44	Forward	GAGAATTCATGCGGTACCTGGCGCCTA
Pb-44	Reverse	GTTTCAGGTT CAGGGGG GAGG
Pb-47	Forward	TCGAATTCACCGGTACATGGCGCCTAC
Pb-47	Reverse	GTTTCAGGTT CAGGGGG GAGG
⁴² AARA ⁴⁵	Forward	GCTCCCTTCGTAG CCG CTCGGG CC CTGGCGCCTACG
⁴² AARA ⁴⁵	Reverse	CGTAGGCGCCAG GGCC CGAG CGG CTACGAAGGGAGC