

Table S2. Oligonucleotides used in this study.

Name	Sequence (5'→3', bold: nucleotide substitutions; <u>underlined</u>: restriction enzyme site; <i>italic</i>: FLAG tag)	Purpose
Sall_ravN_upst_for	AAAAGT <u>TCGACTT</u> CAGCTGATAATTGGTTACTTTCATA	pSR47S
SacI_ravN_down_rev	AAAAG <u>AGCTCGT</u> GCATCGCCAGCACTTCTGCAT	pSR47S
ΔravN_for	GTAATACAGGTTGGGTTTAATGTGAAGTTGGCATAATAATAGTC CTTTAGC	pSR47S
ΔravN_rev	GCTAAAGGACTATTATTATGCCAACTTCACATTAACCCCAACCT GTATTAC	pSR47S
BglII_ravN_for	AAAGATCTCCAACCTATTTTTGATCCTATTAT	pGEX-6p-1
Sall_ravN_rev	AAGT <u>TCGACTT</u> AATGTGAGTGCCATGAGTA	pGEX-6p-1
HindIII_FLAG_TEV_ravN_for_a	GAAAACTGTATTTTCAGGGCGGCAGCGGCCCAACTATTTTTGA TCCTATTAT	pcDNA5/FRO/TO
HindIII_FLAG_TEV_ravN_for_b	AAAAGCTT <u>GCCATGGACTACAAGGACGACGATGACAAAGGCAGCG</u> GCGAAAACTGTATTTTCAGGGC	pcDNA5/FRO/TO
XhoI_ravN_rev	AACTCGAGTTAATGTGAGTGCCATGAGTA	pcDNA5/FRO/TO
GST-ravN-BamHI_for	TCCGGAGGATCCATGCCAACTTATTTGATCCTATTATGCAAGAAGATAC	Crystallization
GST-ravN-XhoI_rev	TCCGGACTCGAGTCAAATGTGAGTGCCATGAGTATGCTCGC	Crystallization
GST-ravN-XhoI-123_rev	TCCGGACTCGAGTCAATTGATCCTGTAGTACCTCTCGTGCC	Crystallization
RavN_100_stop_BglII_for	GATAAGACTGAACCCTAAAGATCTAAGCAATTTAGTGAC	SD
RavN_100_stop_BglII_rev	GTCACTAAATTGCTTAGATCTTTAGGGTTTCAGTCTTATC	SD
RavN_140_stop_BglII_for	TATCAACCCTATTCTAAAGATCTATCCATGGGCATCAT	SD
RavN_140_stop_BglII_rev	ATGATGCCCATGGATAGATCTTTAGAATAGGGGTTGATA	SD
RavN_110_stop_BglII_for	TCCGTTAAGAGAGAGTAAAGATCTTTAACTGAAAACCTGG	SD
RavN_110_stop_BglII_rev	CCAGTTTTTCAGTTAAAGATCTTTACTCTCTCTTAACGGA	SD
RavN_120_stop_BglII_for	GCACGAGAGGTACTATAAAGATCTCAGGATCAATTTGCT	SD
RavN_120_stop_BglII_rev	AGCAAATTGATCCTGAGATCTTTATAGTACCTCTCGTGC	SD
RavN_123_stop_BglII_for	GTACTACAGGATCAATAAAGATCTTTTGCTCATGCAGGG	SD
RavN_123_stop_BglII_rev	CCCTGCATGAGCAAAAAGATCTTTATGATCCTGTAGTAC	SD
RavN_130_stop_BglII_for	CATGCAGGGCAAAACTAAAGATCTCCTCATTTCTTTTT	SD
RavN_130_stop_BglII_rev	AAAAAAGAAATGAGGAGATCTTTAGTTTTGCCCTGCATG	SD
RavN(I8S)_for	CTTATTTTGATCCTAGTATGCAAGAAGATAC	SD
RavN(I8S)_rev	GTATCTTCTTGCATACTAGGATCAAAAATAAG	SD
RavN(L43S)_for	GGATTGGAGCACAGCCCCAGTGATCCAAC	SD
RavN(L43S)_rev	GTTGGATCACTGGGGCTGTGCTCCAATCC	SD
RavN(P47S)_for	CTCCCCAGTGATCAACTACTCACGCGGAG	SD
RavN(P47S)_rev	CTCCGCGTGAGTAGTTGAATCACTGGGGAG	SD
RavN(L43S/P47S)_for	GGATTGGAGCACAGCCCCAGTGATCAACTACTCACGCGGAG	SD
RavN(L43S/P47S)_rev	CTCCGCGTGAGTAGTTGAATCACTGGGGCTGTGCTCCAATCC	SD
RavN(K101A)_for	AGACTGAACCCGCGCAATTTAGTGAC	SD
RavN(K101A)_rev	GTCACTAAATTGCGCGGGTTCAGTCT	SD
RavN(Q102A)_for	CTGAACCCAAGGCATTTAGTGAC	SD
RavN(Q102A)_rev	GTCACTAAATGCCTTGGGTTTCAG	SD
RavN(F103A)_for	CTGAACCCAAGCAAGCTAGTGACTCCG	SD
RavN(F103A)_rev	CGGAGTCACTAGCTTGCTTGGGTTTCAG	SD
RavN(S104A)_for	CCCAAGCAATTTGCTGACTCCGTTAAG	SD
RavN(S104A)_rev	CTTAACGGAGTCAGCAAATTTGCTTGGG	SD
RavN(D105A)_for	CCCAAGCAATTTAGTGCTCCTCCGTTAAG	SD
RavN(D105A)_rev	CTTAACGGAGGCACTAAATTTGCTTGGG	SD
RavN(S106A)_for	CCCAAGCAATTTAGTGACGCCGTTAAG	SD
RavN(S106A)_rev	CTTAACGGCGTCACTAAATTTGCTTGGG	SD
RavN(V107A)_for	GCAATTTAGTGACTCCGCTAAGAGAGAG	SD
RavN(V107A)_rev	CTCTCTTAGCGGAGTCACTAAATTTGC	SD
RavN(K108A)_for	GCAATTTAGTGACTCCGTTGCGAGAGAG	SD
RavN(K108A)_rev	CTCTCTCGCAACCGGACTCAATAATTTGC	SD
RavN(R109A)_for	GTGACTCCGTTAAGGCAGAGTTAACTG	SD
RavN(R109A)_rev	CAGTTAACTCTGCCTTAACGGAGTCAC	SD
RavN(E110A)_for	GTGACTCCGTTAAGAGAGCGTTAACTG	SD
RavN(E110A)_rev	CAGTTAACGCTCTCTTAACGGAGTCAC	SD
BamHI_AG_RavN_for	AAAAGGATCCAGATGCCAACTTATTTTGATCCTATTATGC	pYES2/NTA

XbaI_RavN_rev	TTTTTCTAGATTAATGTGAGTGTCCATGAGTATGCTCG	pYES2/NTA
5'P_EcoRV_FLAG_PspXI_sense	<u>ATCCTCGAGACCATGGATTACAAGGATGACGATGACAAGGGC</u>	pcDNA6.2-FLAG
5'P_EcoRV_FLAG_PspXI_anti	<u>TCGAGCCCTTGTCATCGTCATCCTTGTAATCCATGGTCTCGAGGAT</u>	pcDNA6.2-FLAG
Lpg2452_C57A_for	GGCGATAATACGGCCAAATCGGATTTAGAAAAG	SD
Lpg2452_C57A_rev	CTTTCTAAATCCGATTTGGCCGTATTATCGCC	SD
Lpg2452_H426A_for	GATGCTGAAGCTTTTGATGAACTAAGAATAG	SD
Lpg2452_H426A_rev	CTATTCTTAGTTCATCAAAAAGCTTCAGCATC	SD
Lpg2452_D428A_for	GATGCTGAACATTTTGCTGAACTAAGAATAG	SD
Lpg2452_D428A_rev	CTATTCTTAGTTCAGCAAAATGTTTCAGCATC	SD

SD, site-directed mutagenesis