

S140F

Human	QYSSQK S VEERSLRHPLRRLEIS
Chimpanzee	QYSSQK S VEERSLRHPLRRLEIS
Dog	QYSSQK S VEERSLRQPLRRLEIS
Horse	QYSSQK S MEERSLRQPLRRLEIS
Mouse	QYSSQK S VEERSWRQPLRRLEIS
Opossum	QYSSQK S VEERSQRQPLRRLEIS

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S209R

Human	EIVGV S RAGTTSRQRHFDTYHRQ
Chimpanzee	EIVGV S RAGTTSRQRHFDTYHRQ
Dog	EIVGF T HSGAMSRHRHYDTYHRQ
Horse	EIVGL T HSGAVSRHRHYDTYHRR
Mouse	EIVGF T -SGPVSRQRHYDTYHRR
Opossum	EIAG F THAGAVSRQCHYDTYHRH

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A372P

Human	EADH M L P S R ISAAATFIQHECFQ
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Chimpanzee EADHMPPSRISAAATFIQHECFQ
 Dog DADHTPPPISRISAAATFIQHECFQ
 Horse DADHVPPSRISAAATFIQHECFQ
 Mouse DADHVPVSKISAAATFIQHESFQ
 Opossum DSDNTPASRIQAAATFIQHECFQ

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R388W

Human IQHECFQKSEARKRVNQLRGILK
 Chimpanzee IQHECFQKSEARKRVNQLRGIPK
 Dog IQHECFQKSEARKRVNQLRGIPK
 Horse IQHECFQKSEARKRVHQLRGIPR
 Mouse IQHESFQKSEARKRVNQLRGIPK
 Opossum IQHECFQKSEARKRVHHLRGIPK

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I531S

Human	ITEALLTLTENIIPFSGWPEGD
Chimpanzee	ITEALLTLTENIIPFSGWPEGD
Dog	ITEALLILTENIIPFSGWPEGD
Horse	ITEALLILNENIIPFSGWPEGD
Mouse	ITEALLTLTESVIIPFSGWPEGD
Opossum	ITEALLTLTDSVIIPYSGWSEGD

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L787F

Human	SIIPDTPVSTDLLIETTASACYT
Chimpanzee	SIIPDTPVSTDLLIETTASACYT
Dog	SIIPDTPVSTDLLIETTASACYT
Horse	SIIPDTPVSTDLLIETTASACYT
Mouse	SIIPDTPVSTDLLIETTASACYT
Opossum	SIIPDTPVNSDLLIETTASACYT

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Supplemental Figure 1. PKP2 mutations in conserved sequences. The identified missense substitutions (S140F, S209R, A372P, R388W, I531S, L787F) in PKP2 resulted in changes at residues that are conserved (identity or in the same group) between species.