



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	SIIPDTPSTDLLIETTASACYT
Chimpanzee	SIIPDTPSTDLLIETTASACYT
Dog	SIIPDTPSTDLLIETTASACYT
Horse	SIIPDTPSTDLLIETTASACYT
Mouse	SIIPDTPSTDLLIETTASACYT
Opossum	SIIPDTPNSDLLIETTASACYT

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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.