Pig_WT	LESPPGGAPPIFLPSDGQALVLGRGPLTLVTDRKCSRNQVELVADPETRTVAVKQLGVNP
Pig_Mutant	LESPPGGAPPIFLPSDGQALVLGRGPLTLVTDRKCSRNRVELVADPETRTVAVKQLGVNP
Human	LESPPGGAPPIFLPSDGQALVLGRGPLTQVTDRKCSRTQVELVADPETRTVAVKQLGVNP
Chimpanzee	LESPPGGAPPIFLPSDGQALVLGRGPLTQVTDRKCSRTQVELVADPETRTVAVKQLGVNP
Dog	LESPPGGAPPIFLPSDGQALVLGRGPLTQVTDRKCSRNQVELVANPRTRTVAVKQLGINP
Cattle	LESPAGGAPPIFLPTGGQALVLGRGPLTQVTDRKCSRNQVELVADPETRTVAVKQLGVNP
Mouse	LQSPTGGPPPIFLPSDGQALVLGRGPLTQVTDRKCSRNQVELIADPESRTVAVKQLGVNP
Zebrafish	LVSVDGDRVVLPDGRALMFGRGPESRISDKKCSRHQVKLVADYAKQEVLVTQLGPNP
Fruit_fly	LKPTEPE-HHSIHL-TAGENFVGRSRETGIRDSKCSKRQIQLQVDLKKAVVSLKVLGVNP
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Figure S19: PNKP multiple sequence alignment. Figure shows the protein alignment of 6 mammalian, and two non-mammalian species (zebrafish, fruitfly). The PNKP (ENSSSCP00000003467:p.Gln96Arg) missense position (indicated with a blue box) is fully conserved across a wide range of vertebrate species.