

Product datasheet for **AP05052PU-N**

Protein Phosphatase 4 R1 (X/A) Sheep Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 5 - 10 µg/ml; Detects a 125 kDa band in bovine testes lysate.
Reactivity:	Bovine, Human, Mouse, Rat
Host:	Sheep
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Antibody raised against synthetic peptide corresponding to amino acids 38 to 52 of the human protein phosphatase 4R1.
Specificity:	This antibody reacts to Protein Phosphatase 4 R1 (X/A).
Formulation:	Phosphate buffered saline with 0.08% sodium azide State: Purified State: Liquid purified Ig
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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Background:

Protein serine/threonine phosphatase 4R1 is a protein which is associated with the catalytic subunit of protein serine/threonine phosphatase 4 (PP4C) and may possibly regulate the activity of the enzyme. PP4C is 65% identical to PP2AC at the amino acid level and has been placed in the type 2A family of phosphatases. PP4C has been highly conserved between species sharing 91% amino acid identity between human and *Drosophila*. PP4C is predominantly localized in the nucleus in rat brain and liver but is most highly expressed in testis. Additionally, PP4C was demonstrated to be an essential enzyme in the development of *Drosophila* embryos. The expression of PP4C was reduced to 25% of the normal protein level in a mutant strain of *Drosophila* termed centrosomes minus microtubules (cmm). An interesting characteristic of the cmm phenotype is the presence of regions of cells that are unable to complete mitosis because no microtubules exist to connect chromatin and centrosomes. This phenotype implicates PP4C in the regulation of the nucleation and/or stabilization of microtubules. These data taken together indicate that PP4 has a crucial cellular function, although a physiological substrate for PP4 has not yet been identified.

Synonyms:

Protein Phosphatase X/A'2, PP4R1