

## Product datasheet for **AP06567PU-M**

### **PKC mu (PRKD1) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 424-482 of Human PKD1.
Specificity:	This antibody detects endogenous levels of PKD1/PKC mu protein. (region surrounding Gly459)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 100 to 140 kDa
Gene Name:	protein kinase D1
Database Link:	<a href="#">Entrez Gene 5587 Human Q15139</a>



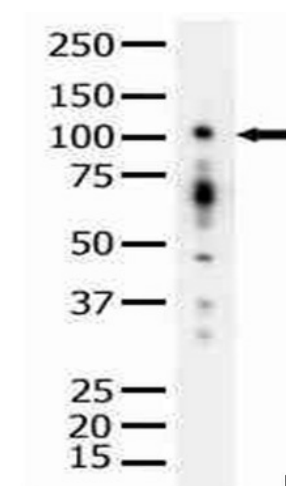
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**Background:**

Protein Kinase C mu, is a ~140 kDa member of the novel group (nPKCs: sensitive to diacylglycerol, phosphatidylserine, and phorbol esters) of the PKC family of serine/threonine kinases that are involved in a wide range of physiological processes including mitogenesis, cell survival, metastasis and transcriptional regulation. PKC mu (also known as Protein Kinase D or PKD) is implicated in the regulation of multiple cellular processes including Golgi organization and membrane transport in epithelial cells. PKC mu is phosphorylated on serine 742 (serine 748 for the mouse sequence) in the activation loop in a PKC-dependent pathway, mainly by PKC eta and PKC epsilon. This is critical for its catalytic activity, substrate phosphorylation and role in activating the ERK1 MAP Kinase signaling cascade. Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes.

**Synonyms:**

Protein kinase D, PKC D1, PKD, PKD1, PRKCM, nPKC-D1, nPKC-mu, PKC mu, Protein kinase C mu type

**Product images:**


Western blot (WB) analysis of PKD1/PKC  $\mu$  antibody in extracts from HepG2 cells.



Immunohistochemistry (IHC) analyzes of  
PKD1/PKC u antibody in paraffin-embedded  
human brain tissue