

Product datasheet for **AP20263PU-N**

PKC mu (PRKD1) (PKD1/2/3) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western blot: 1/500-1/1000.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of PKD1/2/3/PKC μ protein.
Formulation:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; 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:	Entrez Gene 18760 Mouse Entrez Gene 85421 Rat Entrez Gene 5587 Human Q15139



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Background:

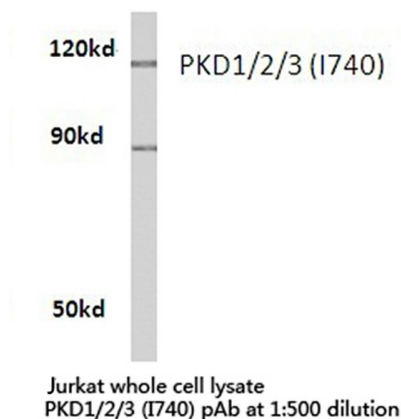
PKC mu is a novel member of the subgroup of atypical protein kinase Cs (PKC). Deduced protein sequence shows strong homology to conserved domains of members of the PKC subfamily. In vitro phorbol ester binding studies and kinase assays with lysates of cells overexpressing PKC mu showed phorbol ester-independent kinase activity, autophosphorylation, and, in normal rat kidney (NRK) cells, predominant phosphorylation of a 30kD protein at serine residues. Data suggest a role of PKC mu in signal transduction pathways related to growth control. PKC mu is a cytosolic protein, which upon binding to the trans-Golgi network (TGN) regulates the fission of transport carriers specifically destined to the cell surface. Mutation of serines 744/748 to alanines in the activation loop of intact PKD inhibits its localization to the TGN. Moreover, anti-phospho-PKD antibody, which recognizes only the activated form of PKD, recognizes the TGN-bound PKD. Thus, activation of intact PKD is important for binding to the TGN. Results demonstrate that betagamma subunits of the heterotrimeric G proteins directly activates PKD by interacting with its pleckstrin homology domain.

Synonyms:

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

Protein Families:

Druggable Genome, Protein Kinase

Product images:

Western blot (WB) analysis of PKD1/2/3/PKC mu antibody (Cat.-No.: AP20263PU-N) in extracts from Jurkat cells.