



# PLCD4 mouse mAb

<b>Catalog No</b>	BYmab-08184
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human; Mouse;Rat
<b>Applications</b>	WB
<b>Gene Name</b>	PLCD4
<b>Protein Name</b>	PLCD4
<b>Immunogen</b>	Synthesized peptide derived from human PLCD4 AA range: 82-132
<b>Specificity</b>	This antibody detects endogenous levels of PLCD4 at Human/Mouse/Rat
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.299% sodium azide.
<b>Source</b>	Monoclonal, Mouse,IgG
<b>Purification</b>	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB 1:500-2000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase delta-4 (hPLCD4) (EC 3.1.4.11) (Phosphoinositide phospholipase C-delta-4) (Phospholipase C-delta-4) (PLC-delta-4)
<b>Observed Band</b>	85kD
<b>Cell Pathway</b>	Membrane ; Peripheral membrane protein . Nucleus . Cytoplasm . Endoplasmic reticulum . Localizes primarily to intracellular membranes mostly to the endoplasmic reticulum.
<b>Tissue Specificity</b>	Highly expressed in skeletal muscle and kidney tissues, and at moderate level in intestinal tissue. Expressed in corneal epithelial cells.
<b>Function</b>	catalytic activity:1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate + H(2)O = 1D-myo-inositol 1,4,5-trisphosphate + diacylglycerol.,cofactor: Binds 3 calcium ions per subunit. Two of the calcium ions are bound to the C2 domain.,domain:The C2 domain mediates pre-localization to the membrane prior to Ca(2+) import and non-selective Ca(2+)-mediated targeting to various cellular membranes.,domain:The PDZ-binding motif mediates the interaction with GRIP1.,domain:The PH domain is not a critical determinant of the membrane localization.,function:Hydrolyzes the phosphatidylinositol 4,5-bisphosphate (PIP2)

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to generate 2 second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). DAG mediates the activation of protein kinase C (PKC), while IP3 releases  $Ca^{2+}$  from intracellular stores. Required for acrosome reaction in sperm during fertilization, probably by acting as an

#### Background

This gene encodes a member of the delta class of phospholipase C enzymes. Phospholipase C enzymes play a critical role in many cellular processes by hydrolyzing phosphatidylinositol 4,5-bisphosphate into two intracellular second messengers, inositol 1,4,5-trisphosphate and diacylglycerol. Expression of this gene may be a marker for cancer. [provided by RefSeq, Jan 2011],

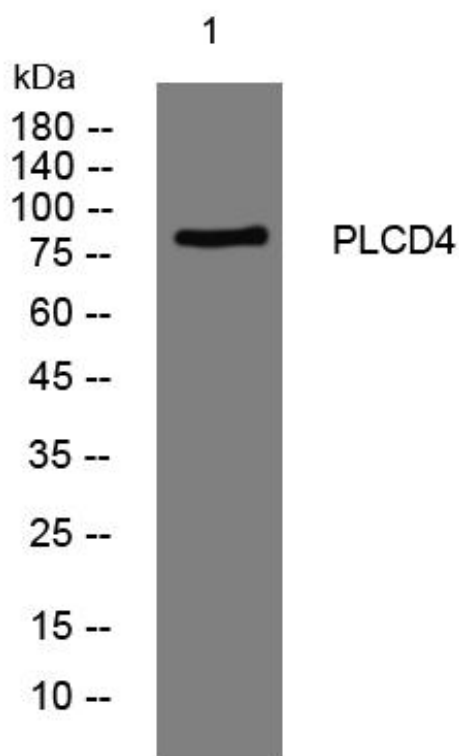
#### matters needing attention

Avoid repeated freezing and thawing!

#### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



Western Blot analysis of various cells using PLCD4 mouse mAb