

PDE4D (Phospho Ser578) Rabbit pAb

CatalogNo: YP1787 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB

MW

- 76kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized peptide derived from human PDE4D (Phospho-Ser578)

Specificity This antibody detects endogenous levels of PDE4D (Phospho-Ser578) at Human, Mouse, Rat. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): PQsPS

| Target Information

Gene name PDE4D DPDE3

Protein Name PDE4D (Phospho-Ser578)

Organism	Gene ID	UniProt ID
Human	5144 ;	Q08499 ;
Mouse	238871 ;	Q01063 ;
Rat	24627 ;	P14270 ;

Cellular Localization

Apical cell membrane . Cytoplasm . Membrane . Cytoplasm , cytoskeleton . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome . Found in the soluble fraction , associated with membranes , and associated with the cytoskeleton and the centrosome (By similarity) . Colocalized with SHANK2 to the apical membrane of colonic crypt cells. .

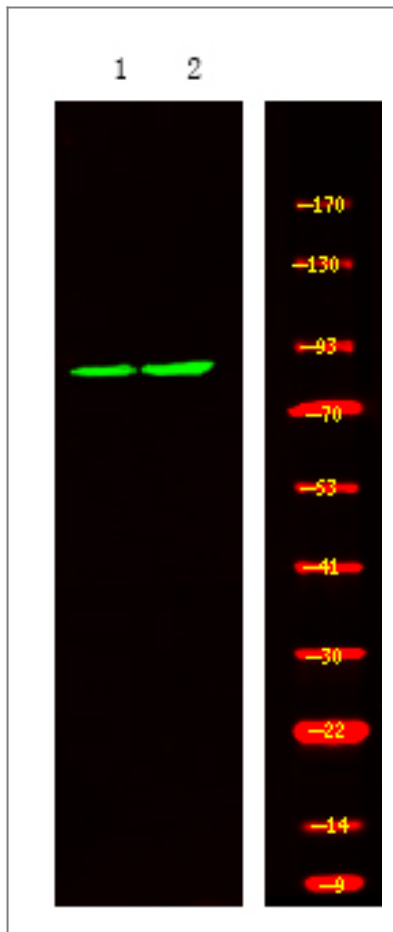
Tissue specificity

Expressed in colonic epithelial cells (at protein level) . Widespread; most abundant in skeletal muscle. ; [Isoform 6]: Detected in brain. ; [Isoform 8]: Detected in brain , placenta , lung and kidney. ; [Isoform 7]: Detected in heart and skeletal muscle.

Function

Catalytic activity:Adenosine 3' ,5'-cyclic phosphate + H (2) O = adenosine 5'-phosphate. ,cofactor:Binds 2 divalent metal cations per subunit. Site 1 may preferentially bind zinc ions , while site 2 has a preference for magnesium and/or manganese ions. ,Disease:Genetic variations in PDE4D might be associated with susceptibility to stroke type 1 (STRK1) [MIM:606799]. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor , sensory and/or cognitive function. PubMed:17006457 states that association with stroke has to be considered with caution. ,enzyme regulation:Inhibited by rolipram. Activated by phosphatidic acid. ,Function:Regulates the levels of cAMP in the cell. ,pathway:Purine metabolism; cAMP degradation; AMP from cAMP: step 1/1. ,PTM:Isoform 2 and isoform 11 are activated by phosphorylation (in vitro) , but not isoform 8. Isoform 7 and isoform 12 are phosphorylated on Ser-49 , Ser-51 , Ser-55 and Ser-59. ,similarity:Belongs to the cyclic nucleotide phosphodiesterase family. ,subcellular location:Found in the soluble fraction , associated with membranes , and associated with the cytoskeleton and the centrosome. ,subunit:Homodimer for the long isoforms. Isoforms with truncated N-termini are monomeric. Isoform 2 is part of a ternary complex containing PRKAR2A , PRKAR2B and AKAP9. Interacts with PDE4DIP (By similarity) . Isoform 5 binds GNB2L1 via its unique N-terminus. Binds ARRB2. ,tissue specificity:Widespread; most abundant in skeletal muscle. Isoform 8 is detected in brain. Isoform 9 is detected in brain , placenta , lung and kidney. Isoform 11 is detected in heart and skeletal muscle. ,

| Validation Data



Western Blot analysis of K-562 cell, 2, LPS 100ng/mL 30min treated ,using primary antibody at 1:1000 dilution. Secondary antibody (catalog#:RS23920) was diluted at 1:10000

Contact information

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PDE4D (Phospho Ser578) Rabbit pAb

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