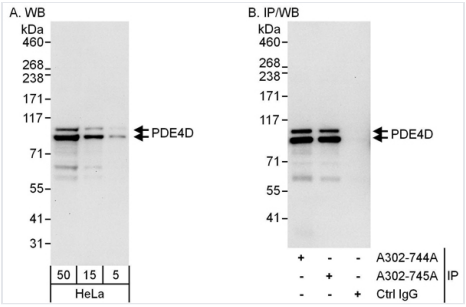
PDE4D Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PDE4D, Polyclonal Antibody
Full Product Name	Rabbit anti-PDE4D Antibody, Affinity Purified
Product Gene Name	anti-PDE4D antibody
Product Synonym Names	PDE4DN2; STRK1; cAMP-specific 3',5'-cyclic phosphodiesterase 4D; phosphodiesterase 4D, cAMP-specific (phosphodiesterase E3 dunce homolog, Drosophila); testicular tissue protein Li 136; HSPDE4D; cAMP-specific phosphodiesterase PDE4D6; ACRDYS2; DPDE3; PDE43; cAMP-specific 3',5'-cyclic phosphodiesterase 4D; phosphodiesterase 4D
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. Whole IgG. Tris-buffered Saline containing 0.1% BSA and 0.09% Sodium Azide
Purity/Purification	Antigen Affinity Purified
Concentration	200ug/ml (lot specific)
Preparation and Storage	Store at 2-8 degree C Shelf Life: 1 year from date of receipt
Molecular Weight	24,429 Da
OMIM	600129
3D Structure	ModBase 3D Structure for Q08499
Immunogen	Between 700 and 750
Conjugation	Unconjugated
Product Categories/Family for anti-PDE4D antibody	Primary Antibodies
Applications Tested/Suitable for anti-PDE4D antibody	Western Blot (WB), Immunoprecipitation (IP)
Application Notes for anti-PDE4D antibody	WB: 1:2000-1:10,000 IP: 6ug/mg lysate
Related Product Information for anti-PDE4D antibody	PDE4D (cAMP-specific 3',5'-cyclic phosphodiesterase 4D) is one of four mammalian counterparts to the fruit fly 'dunce' gene. PDE4D has 3',5'-cyclic-AMP phosphodiesterase activity and degrades cAMP, which acts as a signal transduction molecule in multiple cell types [taken from NCBI Entrez Gene (GeneID: 5144)].
Other Notes	Small volumes of anti-PDE4D antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PDE4D purchase	MBS3903096 is an antibody targeting PDE4D. Also known as Rabbit anti-PDE4D Antibody, Affinity Purified. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-PDE4D antibody
Detection of human PDE4D by western blot and immunoprecipitation. Samples: Whole cell lysate (5, 15 and 50 ug for WB; 1 mg for IP, 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-PDE4D antibody MBS3903096 used for WB at 0.04 ug/ml (A) and 1 ug/ml (B) and used for IP at 3 ug/mg lysate. PDE4D was also immunoprecipitated by rabbit anti-PDE4D antibody MBS3903097, which recognizes a downstream epitope. Detection: Chemiluminescence with exposure times of 30 seconds (A) and 10 seconds (B).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDE4D. It may not necessarily be applicable to this product.

NCBI GI #	157277988
NCBI GeneID	5144
NCBI Accession #	NP_001098101.1
UniProt Primary Accession #	Q08499
UniProt Secondary Accession #	O43433; Q13549; Q13550; Q13551; Q7Z2L8; Q8IV84; Q8IVA9; Q8IVD2; Q8IVD3; Q96HL4; Q9HCX7
UniProt Related Accession #	Q08499
GenBank Nucleotide #	NM_001104631.1
NCBI Official Full Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D isoform PDE4D4
NCBI Official Synonym Full Names	phosphodiesterase 4D
NCBI Official Symbol	PDE4D
NCBI Official Synonym Symbols	DPDE3; PDE43; STRK1; ACRDYS2; HSPDE4D; PDE4DN2
UniProt Protein Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
UniProt Synonym Protein Names	DPDE3; PDE43
Protein Family	cAMP-specific 3',5'-cyclic phosphodiesterase
UniProt Gene Name	PDE4D
UniProt Synonym Gene Names	DPDE3
UniProt Entry Name	PDE4D_HUMAN
NCBI Protein Information	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
NCBI Summary for PDE4D	This gene encodes one of four mammalian counterparts to the fruit fly 'dunce' gene. The encoded protein has 3',5'-cyclic-AMP phosphodiesterase activity and degrades cAMP, which acts as a signal transduction molecule in multiple cell types. This gene uses different promoters to generate multiple alternatively spliced transcript variants that encode functional proteins.[provided by RefSeq, Sep 2009]

UniProt Comments for PDE4D	PDE4D: Hydrolyzes the second messenger cAMP, which is a key regulator of many important physiological processes. Homodimer for the long isoforms. Isoforms with truncated N-termini are monomeric. Isoform 3 is part of a ternary complex containing PRKAR2A, PRKAR2B and AKAP9. Interacts with PDE4DIP. Identified in a complex composed of RYR1, PDE4D, PKA, FKBP1A and protein phosphatase 1 (PP1). Isoform 5, isoform N3 and isoform 12 bind GNB2L1 via their unique N-terminus. Binds ARRB2. Widespread; most abundant in skeletal muscle. Isoform 6 is detected in brain. Isoform 8 is detected in brain, placenta, lung and kidney. Isoform 7 is detected in heart and skeletal muscle. Inhibited by rolipram. Activated by phosphatidic acid. Belongs to the cyclic nucleotide phosphodiesterase family. PDE4 subfamily. 12 isoforms of the human protein are produced by alternative splicing. Protein type: Nucleotide Metabolism - purine; Phosphodiesterase; EC 3.1.4.53 Chromosomal Location of Human Ortholog: 5q12 Cellular Component: Golgi apparatus; centrosome; membrane; myofibril; apical plasma membrane; voltage-gated calcium channel complex; cytosol Molecular Function: 3',5'-cyclic-AMP phosphodiesterase activity; protein binding; enzyme binding; metal ion binding; ubiquitin protein ligase binding; beta-2 adrenergic receptor binding; drug binding; cAMP binding; 3',5'-cyclic-nucleotide phosphodiesterase activity; SH3 domain binding; ATPase binding Biological Process: neutrophil chemotaxis; negative regulation of heart contraction; regulation of heart rate; multicellular organism growth; positive regulation of smooth muscle cell proliferation; cAMP catabolic process; negative regulation of peptidyl-serine phosphorylation; positive regulation of smooth muscle cell migration; T cell receptor signaling pathway; memory; positive regulation of interferon-gamma production; cAMP-mediated signaling; smooth muscle contraction; cellular protein complex assembly; positive regulation of interleukin-2 production; regulation of receptor activity; regulation of G-protein coupled receptor protein signaling pathway; positive regulation of interleukin-5 production; lung development; aging
Research Articles on PDE4D	**1.** No association was found between single-nucleotide polymorphisms of ALOX5AP or PDE4D and the risk of overall ischemic stroke in a southeastern Chinese population.
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