

Rabbit Phospho-PDE4D Polyclonal Antibody | anti-PDE4D antibody

Phospho PDE4D ERK site Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA75755	Rabbit	Human, Mouse, Rat	Western Blot, Immunoprecipitation, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

Phospho-PDE4D; Polyclonal Antibody; Phospho PDE4D ERK site Antibody; cAMP specific 3'; 5' cyclic phosphodiesterase 4D; DKFZp686M11213; 5"-cyclic phosphodiesterase 4D; cAMP specific 3' 5' cyclic phosphodiesterase 4D; cAMP specific phosphodiesterase 4D; cAMP specific phosphodiesterase PDE4D; cAMP specific phosphodiesterase PDE4D6; cAMP-specific 3"; cyclic AMP phosphodiesterase; DPDE3; Duncle like phosphodiesterase E3; FLJ97311; HSPDE4D; PDE43; PDE4DN2; Phosphodiesterase 4D cAMP specific (dunce (Drosophila) homolog phosphodiesterase E3); Phosphodiesterase 4D cAMP specific (phosphodiesterase E3 dunce homolog Drosophila); Phosphodiesterase 4D cAMP specific; Phosphodiesterase E3 dunce homolog Drosophila; STRK 1 antibody; anti-PDE4D antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Specificity	Detects endogenous levels of PDE4D only when phosphorylated at Serine 190.
Form/Format	Affinity Purified Immunoglobulins
Concentration	0.58mg/ml IgG in antibody stabilization buffer (varies by lot)
Sequence Length	687
Applicable Applications for anti-PDE4D antibody	WB (Western Blot), IP (Immunoprecipitation), IHC (Immunohistochemistry), ELISA
Immunogen	Phosphorylated synthetic peptide selective for PDE4D ERK site taken within amino acid region 550-600 on human PDE4D8 protein.
Expression	Expressed in colonic epithelial cells (at protein level). 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.
Modification	Phosphorylated
Molecular Function	Hydrolase, 3', 5'-cyclic-AMP phosphodiesterase activity, cAMP binding
Structure	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).
Subcellular Location	Apical cell membrane, Cytoplasm, Membrane
Related Products	Phospho-PDE4D ERK site Antibody
Preparation and Storage	-20° degree C for long term storage

ADDITIONAL INFORMATION

Related Product Information for anti-PDE4D antibody	Enzymes of the cAMP-dependent phosphodiesterase type 4 (PDE4) family are important in hydrolyzing cAMP produced by G-protein coupled receptor (GPCR) stimulated adenylyl cyclases. In brain more than 90% of cAMP formed by the stimulation of GPCRs is hydrolyzed by PDE4 enzymes (1). Members of the PDE4A, Band D family are associated with GPCRs (adrenergic and dopaminergic) signaling (2, 3). PDE4 enzymes are also important molecular targets for variety of therapeutic agents like antidepressants, antiasthmatics, and anti-inflammatory drugs. PDE4 family comprised of 4 genes (PDE4A, B, C and D); each exhibiting multiple isozymes due to alternate splicing that leads to a larger number of distinct PDE4 variants (4). Members of the PDE4 family are regulated/activated by phosphorylation/dephosphorylation by cAMP-dependent protein kinase A and phosphatases (5). Two conserved phosphorylation motifs have been identified in PDE4B and PDE4D. Phosphorylation at PKA site resulted in significant increase in enzymatic activity of PDE4D variants. Phosphorylation state, protein-protein interactions and cellular trafficking of PDE4D enzymes play an important role in cAMP compartmentalization and cAMP dependent signaling (6). Phospho-PDE4D selective antibody was generated from a peptide that represents a putative ERK phosphorylation site and is common in all PDE4D enzymes (5). To detect the non-phosphorylated PDE4D protein a PDE4D-selective antibody (MBS540072) is also available in affinity purified form. Antigenic blocking peptide and western blot positive controls for phosphorylated and non-phosphorylated PDE4D are available for easy identification and quantification of these proteins. Antibodies can be conjugated to fluorescent probes or secondary enzymes upon request at an additional charge.
Product Categories/Family for anti-PDE4D antibody	Primary Antibodies; Signal Transduction; Second Messengers; cAMP; Phospho-PDE4D ERK site Antibody

NCBI AND UNIPROT INFORMATION

NCBI GI #	308387376
NCBI GeneID	5144
NCBI Accession #	NP_001184148.1
NCBI GenBank Nucleotide #	NM_001197219.1
UniProt Accession #	Q08499; O43433; Q13549; Q13550; Q13551; Q7Z2L8; Q8IV84; Q8IVA9; Q8IVD2; Q8IVD3; Q96HL4; Q9HCX7
NCBI Official Full Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D isoform PDE4D8
NCBI Official Synonym Full Names	phosphodiesterase 4D
NCBI Official Symbol	PDE4D
NCBI Official Synonym Symbols	DPDE3; PDE43; STRK1; ACRDYS2; HSPDE4D; PDE4DN2
NCBI Protein Information	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
UniProt Protein Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
UniProt Gene Name	PDE4D
UniProt Synonym Gene Names	DPDE3
UniProt Entry Name	PDE4D_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/phospho-pde4d-antibody-western-blot-immunoprecipitation-immunohistochemistry-elisa/75755>