

Rabbit PDE4D Polyclonal Antibody | anti-PDE4D antibody

PDE4D Antibody

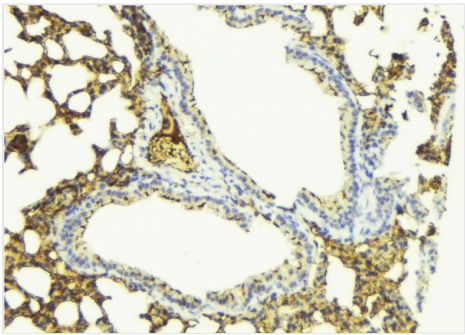
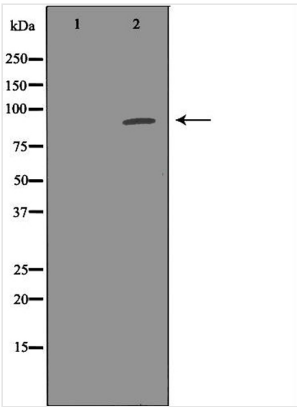
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326301	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PDE4D; Polyclonal Antibody; PDE4D Antibody; cAMP specific 3'; 5' cyclic phosphodiesterase 4D; DKFZp686M11213; 5"-cyclic phosphodiesterase 4D; cAMP specific phosphodiesterase 4D; cAMP specific phosphodiesterase PDE4D6; cAMP-specific 3"; DPDE3; Duncle like phosphodiesterase E3; FLJ97311; HSPDE4D; PDE43; Pde4d; PDE4D_HUMAN; PDE4DN2; Phosphodiesterase 4D cAMP specific (duncle (Drosophila) homolog phosphodiesterase E3); Phosphodiesterase 4D cAMP specific (phosphodiesterase E3 duncle homolog Drosophila); Phosphodiesterase 4D cAMP specific; Phosphodiesterase 4D; cAMP specific (duncle); STRK1; anti-PDE4D antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PDE4D antibody detects endogenous levels of total PDE4D
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	809
Applicable Applications for anti-PDE4D antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PDE4D
Subcellular Location	Cytoplasm. Membrane. Cytoplasm > Cytoskeleton. Cytoplasm > Cytoskeleton > Centrosome. Found in the soluble fraction, associated with membranes, and associated with the cytoskeleton and the centrosome.
Tissue Specificity	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.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326301 at 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts of mouse brain, using PDE4D antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PDE4D antibody

Description: PDE4D(cAMP-specific 3', 5'-cyclic phosphodiesterase 4D) is also named as DPDE3, PDE43 and belongs to the cyclic nucleotide phosphodiesterase family and PDE4 subfamily. PDE4D subtype may be of particular importance as an antidepressant target in that it is regulated by repeated treatment with both norepinephrine and serotonin reuptake inhibitors as well as by the PDE4 inhibitor rolipram(PMID:16730340). It has at least 9 isoforms and all 9 PDE4D isoforms are expressed in healthy adult human hippocampus and in hippocampus from a patient with advanced Alzheimer disease(PMID:17353396). This antibody is specific to PDE4D.

Function: Hydrolyzes the second messenger cAMP, which is a key regulator of many important physiological processes.

Subunit 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) (By similarity). Isoform 5, isoform N3 and isoform 12 bind RACK1 via their unique N-terminus. Binds ARRB2. Interacts (via N-terminal region) with SHANK2 (via proline-rich region); the interaction is increased in a PKA-dependent manner.

Post-translational Modifications: Long isoforms that share a conserved PKA phosphorylation site in the N-terminus are activated by PKA through phosphorylation (By similarity). Isoform 3 and isoform 7 are activated by phosphorylation (in vitro), but not isoform 6. Isoform N3 and isoform 12 are phosphorylated on Ser-49, Ser-51, Ser-55 and Ser-59. Sumoylation of long isoforms by PIAS4 augments their activation by PKA phosphorylation and represses their inhibition by ERK phosphorylation.

Similarity: Belongs to the cyclic nucleotide phosphodiesterase family. PDE4 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	157277988
NCBI GeneID	5144
NCBI Accession #	NP_001098101.1
NCBI GenBank Nucleotide #	NM_001104631.1
UniProt Accession #	Q08499; O43433; Q13549; Q13550; Q13551; Q7Z2L8; Q8IV84; Q8IVA9; Q8IVD2; Q8IVD3; Q96HL4; Q9HCX7
Molecular Weight	Observed: 91 kDa Predicted: 92 kDa
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

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

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pde4d-antibody-immunohistochemistry-western-blot-elisa/326301>