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Rabbit Polyclonal Anti-Pan PDE4A antibody

Catalog Number: PD4A-112AP

General Information

Product	Pan PDE4A Antibody
Description	Phosphodiesterase 4A Antibody
Accession #	Uniprot: P27815
Verified Applications	CM, ELISA, ICC, IF, IHC, IMM, WB
Species Cross Reactivity	Human, Moose, Mouse, Rat
Host	Rabbit
Immunogen	Synthetic cyclic peptide common to all PDE4A proteins.
Alternative Nomenclature	5"-cyclic phosphodiesterase 4A antibody, cAMP specific 3 5 cyclic phosphodiesterase 4A antibody, DPDE2 antibody, dunce like phosphodiesterase E2 antibody, PDE4A antibody, PDE4A_HUMAN antibody, PDE4A11 antibody, Phosphodiesterase 4A antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.65-1.00 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20^0 C for long term storage.

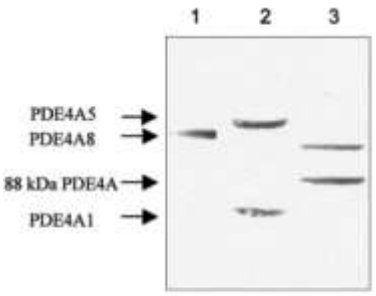
Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunocytochemistry	1:100-1:400
Immunofluorescence	1:100-1:400
Immunohistochemistry	1:100-1:400
Immunoprecipitation	1:250
Western Blot	1:1,000-1:2,500

Related Products

	Catalog #
FITC-Conjugated	PD4A-FITC
Antigenic Blocking Peptide	P-PD4A
Western Blot Positive Control	PC-PD4A

Application Verification:



WB of PD4A-112AP with recombinant PDE4A8 (1), PDE4A5 and PDE4A1 (2) and rat testis (3). 1:500 antibody dilution in DiluObuffer.

Overview:

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). PDE4 enzymes are also important molecular targets for variety of therapeutic agents like antidepressants, anti-asthmatics, 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 (2). Rolipram, an antidepressant drug, inhibits all the members of PDE4 family in □M concentration range. In rodents, inhibition of PDE4 enzymes attenuated short- and long-term memory impairment produced by scopolamine and MK801 administration (3). Members of the PDE4 family are regulated/activated by phosphorylation/dephosphorylation by cAMP-dependent protein kinase A and phosphatases (4). Protein-protein interactions and cellular trafficking of PDE4A enzymes play an important role in cAMP compartmentalization and cAMP-dependent signaling (5). In brain members of the PDE4A, B and D family are associated with GPCRs (adrenergic and dopaminergic) signaling (6, 7), while in testis PDE4A variants are expressed exclusively in primary and secondary germ cells and are believed to be responsible for normal spermatogenesis (8).

FabGennix provides PDE family selective, family subtype-selective and family-subtype-variant selective antibodies for detailed analyses of cAMP signaling pathways. The PDE4A selective antibody was generated from a C-terminal peptide that is common in all PDE4A enzymes using cyclic peptide methodology that results in higher titer and specificity (9). Antibody PD4A-112P labels all known PDE4A variants including PDE4A1, A5, Ax, A8 and a 76 kDa testis specific A variant. PDE4A-selective antibody is also available in affinity purified from for confocal, western blotting and immunocytochemical analysis. FabGennix carries western blot positive controls for PDE4A in ready to use buffers for easy identification and quantification of PDE4A protein in samples. FabGennix can also conjugate antibodies with fluorescent probes upon request at extra charge.

References

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6. Farooqui S. M., Zhang K., Makhay M., Jackson K., Farooqui S, Q., Cherry J. M and O'Donnell J. M. (1998) J. Neurochem 57;1363 1991
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9. Farooqui, S. M., Brock. W. J., A. Hamdi., Prasad. C. (1991) J. Neurochem. 57, 1363-1369.

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