

Rabbit Polyclonal Anti-PDE2A antibody

Catalog Number: PD2A-101AP

Lot Number:

General Information

Product	PDE2A Antibody
Description	Phosphodiesterase 2A, cGMP-stimulated Antibody Affinity Purified C-epitope
Accession #	Uniprot: UPI000003B340 GenBank: EAW74861.1
Verified Applications	CM, ELISA, ICC, IF, IHC, IP, WB
Species Cross Reactivity	Human, Mouse, Rat
Host	Rabbit
Immunogen	Synthetic peptide corresponding to unique C-terminal amino acid sequence on PDE2A gene.
Specificity	This antibody will label PDE2A1, PDE2A2, PDE2A3 and PDE2A4 variants.
Alternative Nomenclature	5''-cyclic phosphodiesterase antibody, cGMP dependent 3'5' cyclic phosphodiesterase antibody, Phosphodiesterase 2A cGMP stimulated antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.7 mg/ml IgG in antibody stabilization buffer
Determinant	C-epitope
Storage	Store at -20°C for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunocytochemistry	1:150-1:1,000
Immunofluorescence	1:150-1:1,000
Immunohistochemistry	1:250-1:1,000
Immunoprecipitation	1:200
Western Blot	1:250-1:1,000

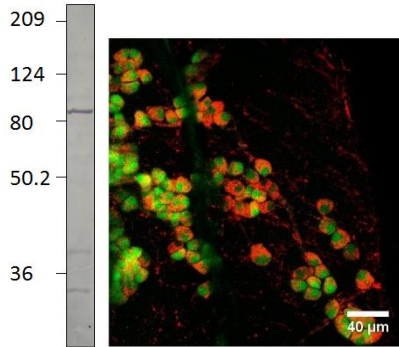
Related Products

FITC-Conjugated
BIOTIN-Conjugated
PDE2A N-epitope
Antigenic Blocking Peptide
Western Blot Positive Control

Catalog

PD2A.c-FITC
PD2A.c-BIOTIN
PD2A-112AP
P-PD2A.c
PC-PD2A

Application Verification:



Immunostaining of PDE2A expressing cells with PD2A-101AP. 1:250 antibody dilution in DiluObuffer.

IF with PD2A-101AP with whole-mount mouse nose. Green: Grüneberg ganglion neurons. Red: antibody immunoreactivity. Staining performed with blocking peptide P-PD2A.n. Data provided by Dr. Kroos Lab Caltech, Pasadena, CA.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

Overview:

Cyclic nucleotides are important intracellular second messengers which play important role variety of signal transduction process. The cyclic nucleotides are hydrolyzed and compartmentalized by a family of enzymes called phosphodiesterases. One of the phosphodiesterases that compartmentalize and hydrolyze cAMP and cGMP into AMP and GMP respectively, are phosphodiesterase type 2. There are two members of the PDE2A gene that are cloned and designated as PDE2A and PDE2B (1). Each of the PDE2A and PDE2B genes are 2793 Bases and 930 amino acids with an apparent MW of 100 kDa. The catalytic domain of PDE2A is homologous to all other known PDE family members. The PDE2A has specificity for cAMP with K_m of 2.4 μ M and its activity is modulated by the presence of cGMP. In contrast, the PDE2B does not hydrolyze cGMP nor is its activity altered by the presence of cGMP. Western blot analysis of PDE2A reveals a variety of tissues including neocortex, cerebellum, heart, kidney lungs, pulmonary artery and skeletal muscle (2). The PDE2A expression was evident in venous arterial endothelial cells but not in arterial endothelial cells (2). The PDE2A expression was also noted in corpus cavernosum along with a wide repertoire of other PDEs enzymes (3).

FabGennix provides antibodies to many PDE family members including PDE-selective, family subtype-selective and family-subtype-variant selective antibodies for the detailed analysis of cyclic nucleotide signaling pathways. We have generated two PDE2A-selective antibodies that were generated from epitopes close to N- and C-terminal regions using cyclic peptide methodology that results in higher titer and specificity (4). The polyclonal antibody (PD2A-101AP) labels a 103 kDa PDE2A protein in PDE2A positive control (PC-PD2A). The PDE2A-specific antiserum has no cross reactivity against PDE2B or with other PDE family members tested so far. Antibodies can be conjugated to secondary enzymes or fluorophores upon request at nominal costs. Antigenic blocking peptides are also available for immunocompetition/immunodepletion assays. For a complete listing of all FabGennix products and services please visit <http://fabgennix.com>.

References

1. Rascon A., Soderling SH, Schaefer and Beavo JA. Proc. Natl. Acad. Sci. USA 2002; 299, 4714-4719.
2. Sadhu K., Hanseley, K, V. L. Florio, and Folda, SA. J. Histochem and Cytochem. 47, 895-906, 1999.
3. Kuthe A., Widenroth, A., Magret J. H., et. al., J. Urol. 2001. 165, 280-283.
4. Farooqui S. M. Hamdi A., Brock J., Prasad C. J. Neurochem 57;1363-369, 1991.

* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.

This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.