

## Rabbit Polyclonal Anti-PDE2A2 antibody

Catalog Number: PD2A2-201AP

Lot Number:

### General Information

<b>Product</b>	PDE2A2 Antibody
<b>Description</b>	Affinity Purified Phosphodiesterase 2A2 Antibody N-epitope
<b>Accession #</b>	Uniprot: O00408 NCBI: NP_001230713.1
<b>Verified Applications</b>	ELISA, IP, WB
<b>Species Cross Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Immunogen</b>	Synthetic peptide corresponding to region within amino acids 1-50 on N-terminus of human PDE2A2 protein.
<b>Specificity</b>	This antibody will detect only the PDE2A2 variant.
<b>Alternative Nomenclature</b>	Phosphodiesterase 2A2

### Physical Properties

<b>Quantity</b>	100 µg
<b>Volume</b>	200 µl
<b>Form</b>	Affinity Purified Immunoglobulins
<b>Immunoglobulin &amp; Concentration</b>	0.5 mg/ml IgG in antibody stabilization buffer
<b>Determinant</b>	N-epitope
<b>Storage</b>	Store at -20°C for long term storage.

### Recommended Dilutions

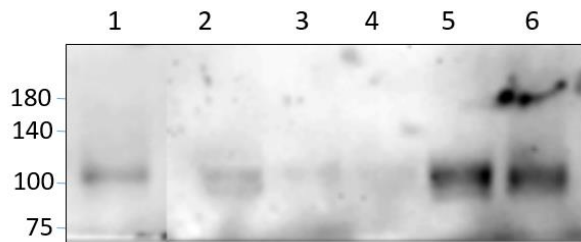
<b>DOT Blot</b>	1:10,000
<b>ELISA</b>	1:10,000
<b>Immunoprecipitation</b>	1:200
<b>Western Blot</b>	1:250-1:1,000

## Related Products

## Catalog #

<b>BIOTIN-Conjugated</b>	PD2A2-BIOTIN
<b>FITC-Conjugated</b>	PD2A2-FITC
<b>Antigenic Blocking Peptide</b>	P-PD2A2
<b>Western Blot Positive Control</b>	PC-PD2A2
<b>Pan PDE2A Antibody</b>	PD2A-101AP
<b>PDE2A1 Antibody</b>	PD2A1-101AP
<b>PDE2A3 Antibody</b>	PD2A3-301AP
<b>PDE2A4 Antibody</b>	PD2A4-121AP

## Application Verification:



WB of PDE2A2 with rat tissues: 1. Heart 2. Testis 3. Ovary 4. Midbrain 5. Cerebellum 6. Spinal Cord. Primary antibody PD2A2-201AP diluted 1:250 in DiluOBuffer.

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 Km of 2.4  $\mu$ 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). There are currently 4 isoforms of the PDE2A protein denoted as PDE2A1, PDE2A2, PDE2A3 and PDE2A4.

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. PDE2A2-selective antibody has been generated against N-terminus amino acid sequence taken within the first 50 amino acids. The PDE2A2-specific antiserum has no cross reactivity against PDE2B or with other PDE family members tested so far. Antigenic blocking peptides (P-PD2A2) and western blot positive controls (PC-PD2A2) are available. Antibodies can be conjugated to secondary enzymes or fluorophores upon request at nominal costs. 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.

\* 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.