

## PDE2A3 Western Blot Positive Control

Catalog Number: PC-PD2A3

Lot Number:

### General Information

<b>Product</b>	PDE2A3 Positive Control
<b>Description</b>	Western Blot Positive Control Phosphodiesterase 2A3
<b>Accession #</b>	Uniprot: O00408 NCBI: NP_002590.1
<b>Verified Applications</b>	WB
<b>Immunogen</b>	Purified protein.
<b>Alternative Nomenclature</b>	Phosphodiesterase 2A3

### Physical Properties

<b>Quantity</b>	5 Applications
<b>Volume</b>	Inquire
<b>Form</b>	Positive Control in SDS-sample buffer
<b>Storage</b>	Store at -20°C for long term storage.

### Recommended Dilutions

<b>Western Blot</b>	1:250-1:1,000
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### Related Products

### Catalog #

<b>PDE2A3 Antibody</b>	PD2A3-301AP
<b>BIOTIN-Conjugated</b>	PD2A3-BIOTIN
<b>FITC-Conjugated</b>	PD2A3-FITC
<b>Antigenic Blocking Peptide</b>	P-PD2A3
<b>Pan PDE2A Antibody</b>	PD2A-101AP
<b>PDE2A1 Antibody</b>	PD2A1-101AP
<b>PDE2A2 Antibody</b>	PD2A2-201AP
<b>PDE2A4 Antibody</b>	PD2A4-121AP

## 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. PDE2A3-selective antibody has been generated against N-terminus amino acid sequence taken within the first 50 amino acids of human PDE2A3 protein. The PDE2A3-specific antiserum has no cross reactivity against PDE2B or with other PDE family members tested so far. Antigenic blocking peptides (P-PD2A3) and western blot positive controls (PC-PD2A3) are available. PD2A3 western blot positive control is prepared in ready-to-use SDS-sample buffer. 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.