

Rabbit Phospho-PDE5A Polyclonal Antibody | anti-PDE5A antibody

Phospho PDE5A Antibody FITC-Conjugated

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA76029	Rabbit	Cross-Reactivity: Bovine, Human, Mouse, Pig, Rat, Sheep	Western Blot, Immunoprecipitation, Immunohistochemistry, Immunocytochemistry, ELISA

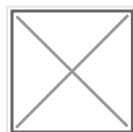
PRODUCT SYNONYMS

Phospho-PDE5A; Polyclonal Antibody; Phospho PDE5A Antibody FITC-Conjugated; 5'-cyclic phosphodiesterase; CGB PDE; cGMP binding cGMP specific 3' 5' cyclic nucleotide phosphodiesterase; cGMP binding/cGMP specific phosphodiesterase; cGMP specific 3'5' cyclic phosphodiesterase; cGMP specific phosphodiesterase PDE5A2; cGMP specific phosphodiesterase type 5A; cGMP-binding cGMP-specific phosphodiesterase; cGMP-specific 3"; CN5A; CN5N; PDE 5; PDE 5A; PDE5A1; Phosphodiesterase 5A; Phosphodiesterase 5A cGMP specific; Phosphodiesterase isozyme 5 antibody; anti-PDE5A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Cross-Reactivity: Bovine, Human, Mouse, Pig, Rat, Sheep
Clonality	Polyclonal
Specificity	This antibody will detect only PDE5A protein that has been phosphorylated at the PKG site. Will not detect unphosphorylated PDE5A, or other PDE family members.
Form/Format	FITC-Conjugated
Sequence Length	921
Applicable Applications for anti-PDE5A antibody	WB (Western Blot), IP (Immunoprecipitation), IHC (Immunohistochemistry), ICC (Immunocytochemistry), ELISA
Immunogen	Phosphorylated synthetic peptide common to all PDE5A variants taken within amino acid region 120-170 on human PDE5A protein.
Preparation and Storage	Store at -20• degree C for long term storage

IMAGES



WB (Western Blot)

WB of recombinant GFP-PDE5A1 and phospho-PDE5A antibody. Overexpressing cells were treated with or without ANP. 1:500 in antibody dilution in DiluObuffer. Blot was stripped with stripObuffer and reprobed

ADDITIONAL INFORMATION

Related Product Information for anti-PDE5A antibody	<p>FITC-Conjugated Phosphorylated Phosphodiesterase 5A Antibody</p> <p>The cyclic monophosphate nucleotides, cyclic adenosine monophosphate (cAMP) and cyclic guanosine monophosphate (cGMP) are found ubiquitously in mammalian cells and act as second messenger transducers to effect the intracellular actions of a variety of G-protein coupled receptors (GPCRs) for hormones, cytokines, and neurotransmitters. Cyclic nucleotides are important intracellular second messengers which play important role in a variety of signal transduction process. The cyclic nucleotides are hydrolyzed and compartmentalized by a family of enzymes called phosphodiesterases. One of the many phosphodiesterases that compartmentalized and hydrolyze cGMP in various tissues is phosphodiesterase type 5A (POE5A). The cGMP is involved in nitric oxide signaling as well as cell signaling associated with natriuretic peptides and galanins. Some of the intracellular binding sites for the cGMP include cyclic nucleotide gated ion channels, cGMP-dependent protein kinases, and cyclic GMP binding phosphodiesterases (cGB-POEs). The cGB-POEs include POE2, POE3, POE5 and POE10; the members of these families contain various structural and functional motifs that are conserved. Most of these proteins contain dimeric subunits that contain a highly conserved cGMP binding site and a phosphodiesterase catalytic site. The cGMP-specific phosphodiesterase type-5A (POE5A) family is comprised of single gene with multiple splice variants (POE5A1 and POE5A2) generated by RNA splicing and use the of alternate initiation sites (1,2). POE5 is highly expressed in aorta, lungs, intestine, kidney adrenal gland, cerebellum, and cerebrum. In cerebellum, the POE5 is highly expressed during neonatal development in Purkinje cells layer. POE5 is also abundant in vascular smooth muscle regulating cGMP levels and vascular smooth muscle tonicity. In corpus cavernosum inhibition of POE5 by sildenafil corrects erectile dysfunctions. The nitric oxide donor sodium nitroprusside (SNP) stimulate POE5 activity by cGMP-dependent kinase phosphorylation (Rybalkin et al. , 2002; Murthy 2001). POE5A1 has 875 amino acids (99.5 kDa). The amino terminal 142 amino acid of the POE5 gene showed no sequence homology with other POEs and also contained serine 92 that is phosphorylated by cGMP-kinases (McAllister et al. , 93). A phospho-specific POE5A antibody was generated against the conserved PKG phosphorylation site.</p> <p>The affinity purified antibody labels POE5A proteins when they are phosphorylated at Ser92 by PKG. The POE5-selective antibody was generated using cyclic peptide methodology that results in higher titer and specificity (3). The POE5-selective antibodies are generated against peptides from unique sequences on the POE5A gene. The affinity purified antibody labels 99 and 89 kDa POE5A 1 and POE5A2 proteins using POE5A WB positive controls. The POE5A-specific antiserum has no cross reactivity against POE5B protein or any other member of the fast growing family of POEs.</p>
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NCBI AND UNIPROT INFORMATION

NCBI GI #	119625682
NCBI GeneID	8654
UniProt Accession #	UPI0000EE2B22; O75026; O75887; Q86UI0; Q86V66; Q9Y6Z6; A0AV69; A8K2C4; O76074
NCBI Official Full Name	phosphodiesterase 5A, cGMP-specific, isoform CRA_c
NCBI Official Synonym Full Names	phosphodiesterase 5A
NCBI Official Symbol	PDE5A
NCBI Official Synonym Symbols	CN5A; PDE5; CGB-PDE
NCBI Protein Information	cGMP-specific 3',5'-cyclic phosphodiesterase
UniProt Protein Name	cGMP-specific 3',5'-cyclic phosphodiesterase
UniProt Gene Name	PDE5A
UniProt Synonym Gene Names	PDE5; CGB-PDE
UniProt Entry Name	PDE5A_HUMAN

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/phospho-pde5a-antibody-western-blot-immunoprecipitation-immunohistochemistry-immunocytochemistry-elisa/76029>