



Rabbit Anti-PDE5A antibody

SL2349R

Product Name:	PDE5A
Chinese Name:	磷酸二酯酶5A抗体
Alias:	5"-cyclic phosphodiesterase; CGB PDE; CGB-PDE; CGBPDE; cGMP binding cGMP specific 3' 5' cyclic nucleotide phosphodiesterase; cGMP binding cGMP specific 35 cyclic nucleotide phosphodiesterase; cGMP binding cGMP specific 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; PDE5; Pde5a; PDE5A_HUMAN; PDE5A1; Phosphodiesterase 5A; Phosphodiesterase 5A cGMP specific; Phosphodiesterase isozyme 5.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,Guinea Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2µg/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	100kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PDE5A:101-200/875
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:[PubMed](#)

The cGMP specific phosphodiesterase type 5A (PDE5A) family is comprised of 2 genes (PDE5A and PDE5B) each with multiple splice variants generated by RNA splicing and use of alternate initiation sites. The PDE5 is highly expressed in aorta and lungs, intestine, kidney adrenal gland cerebellum and cerebrum. In cerebellum the PDE5 is highly expressed during neonatal development in Purkinje cells layer. The PDE5 is also abundant in vascular smooth muscle regulating cGMP levels and vascular smooth muscle tonicity. In corpus cavernosum inhibition of PDE5 by sildenafil corrects erectile dysfunctions. The nitric oxide donor sodium nitroprusside (SNP) stimulate PDE5 activity by cGMP dependent kinase phosphorylation. PDE5A1 has 875 amino acids (99.5 kDa). The amino terminal 142 amino acid of the PDE5 gene showed no sequence homology with other PDEs and also contained serine 92 that is phosphorylated by cGMP kinases.

Function:

Plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides. This phosphodiesterase catalyzes the specific hydrolysis of cGMP to 5'-GMP.

Tissue Specificity:

Expressed in aortic smooth muscle cells, heart, placenta, skeletal muscle and pancreas and, to a much lesser extent, in brain, liver and lung.

Product Detail:**Post-translational modifications:**

Phosphorylation is regulated by binding of cGMP to the two allosteric sites (By similarity). Phosphorylation by PRKG1 leads to its activation.

Similarity:

Belongs to the cyclic nucleotide phosphodiesterase family.
Contains 2 GAF domains.

SWISS:

O76074

Gene ID:

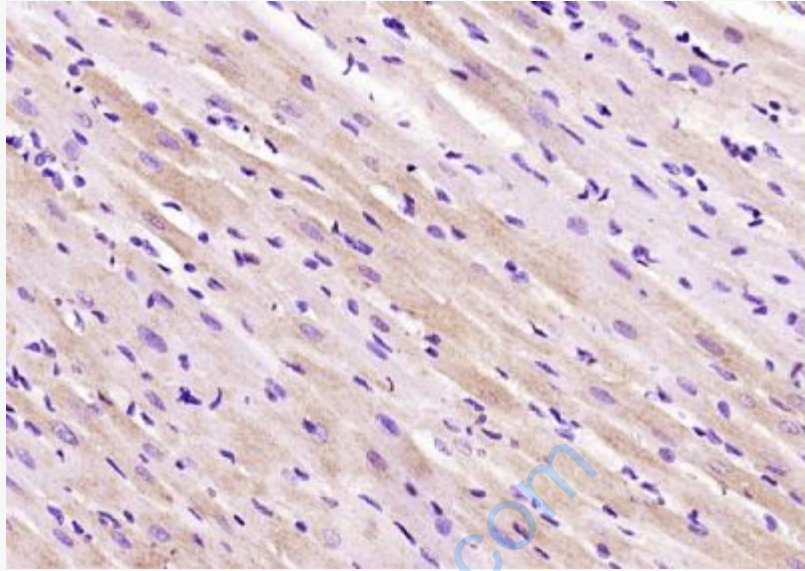
8654

Database links:

UniProtKB/Swiss-Prot: O76074.2

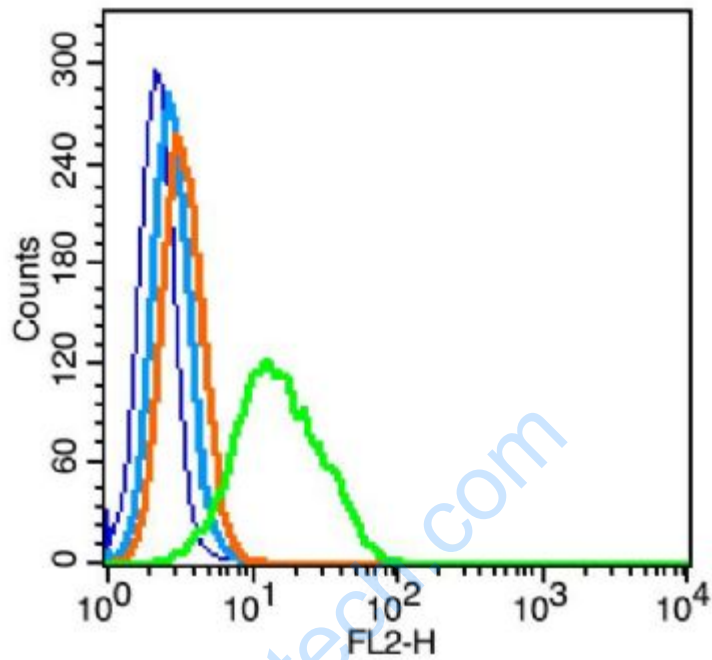
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (rat heart tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PDE5A) Polyclonal Antibody, Unconjugated (SL2349R) at 1400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control: RSC96(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ;

Primary Antibody Dilution: 0.2 μ g in 100 μ L 1X PBS containing 0.5% BSA(green).