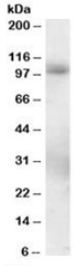
Phosphodiesterase 5A Antibody / cGMP Binding Phosphodiesterase Antibody (R34720)

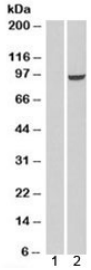
Catalog No.	Formulation	Size
R34720-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

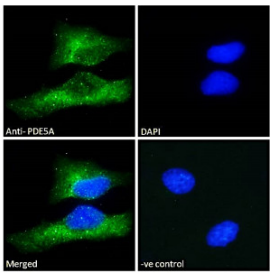
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Rat, Dog, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	8654
Applications	Western Blot : 0.3-1ug/ml ELISA (peptide) LOD : 1:16000 Immunofluorescence : 10ug/ml Flow Cytometry : 10ug/ml
Limitations	This Phosphodiesterase 5A Antibody / cGMP Binding Phosphodiesterase Antibody is available for research use only.



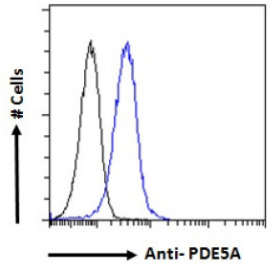
Phosphodiesterase 5A Antibody Human Lung WB. Western blot analysis was performed using Phosphodiesterase 5A Antibody at 0.3 ug/ml on human lung lysate. A specific immunoreactive band is detected at approximately 100 kDa, consistent with the predicted molecular weight of the PDE5A isoforms (~100/95 kDa for isoforms 1 and 2). The clean, specific band demonstrates that this cGMP Binding Phosphodiesterase Antibody is suitable for Western blot detection of PDE5A in human tissue.



Phosphodiesterase 5A Antibody Human HEK293 Cell WB. Western blot analysis was performed using lysates from human HEK293 cells mock transfected (lane 1) or transfected to overexpress PDE5A (lane 2). Phosphodiesterase 5A Antibody was used at 0.3 ug/ml. A strong immunoreactive band is detected at approximately 100 kDa exclusively in the PDE5A-overexpressing sample, consistent with the predicted molecular weight of PDE5A isoforms (~100/95 kDa for isoforms 1 and 2), while the mock-transfected control shows no detectable signal. These results demonstrate that this cGMP Binding Phosphodiesterase Antibody specifically detects PDE5A by Western blot.



Phosphodiesterase 5A Antibody HeLa Cell IF. Immunofluorescence staining was performed on human HeLa cells using Phosphodiesterase 5A Antibody at 10 ug/ml. Bound antibody was detected with a fluorophore-conjugated secondary antibody (green), and nuclei were counterstained with DAPI (blue). The merged image demonstrates strong cytoplasmic staining with minimal nuclear signal, while the negative control shows no specific fluorescence. These results demonstrate that this cGMP Binding Phosphodiesterase Antibody is suitable for immunofluorescent detection of PDE5A in cultured human cells.



Phosphodiesterase 5A Antibody HEK293 Cell FACS. Flow cytometric analysis was performed on human HEK293 cells using Phosphodiesterase 5A Antibody at 10 ug/ml. The black histogram represents the isotype control, while the blue histogram represents cells stained with the PDE5A antibody. A clear rightward shift of the blue population relative to the isotype control demonstrates specific antibody binding and confirms PDE5A expression in HEK293 cells. These results demonstrate that this cGMP Binding Phosphodiesterase Antibody is suitable for flow cytometric detection of PDE5A.

Description

Phosphodiesterase 5A Antibody recognizes cGMP Binding Phosphodiesterase, an intracellular enzyme encoded by the PDE5A gene that selectively binds and hydrolyzes cyclic guanosine monophosphate (cGMP). Through regulation of intracellular cGMP concentrations, PDE5A serves as an important modulator of nitric oxide signaling, smooth muscle relaxation, vascular homeostasis, and cyclic nucleotide-dependent signal transduction. The official protein designation, Phosphodiesterase 5A, is widely used throughout molecular biology, pharmacology, and genomic research, making Phosphodiesterase 5A Antibody a valuable reagent for studies centered on the PDE5A gene and its encoded protein. NSJ Bioreagents provides this antibody for research use.

PDE5A belongs to the cyclic nucleotide phosphodiesterase superfamily and contains regulatory GAF domains that bind cyclic guanosine monophosphate, influencing enzyme activity and intracellular signaling. The catalytic domain then hydrolyzes cGMP to 5-prime GMP, thereby terminating cGMP-dependent signaling events. Multiple alternatively spliced isoforms contribute to tissue-specific regulation of PDE5A expression, with abundant levels reported in smooth muscle-rich tissues, lung, heart, corpus cavernosum, and selected regions of the nervous system. Researchers frequently use Phosphodiesterase 5A Antibody to investigate protein expression, localization, and regulation in studies of vascular biology, pulmonary physiology, and cyclic nucleotide metabolism.

Because the PDE5A gene is extensively represented in transcriptomic datasets, functional genomics studies, and pharmacological investigations, the formal protein name Phosphodiesterase 5A is commonly used alongside the gene symbol in scientific literature. A dedicated Phosphodiesterase 5A Antibody provides an intuitive resource for investigators correlating gene expression with protein abundance or examining changes in PDE5A regulation under physiological and pathological conditions. These studies continue to advance understanding of cyclic nucleotide signaling in cardiovascular disease, pulmonary hypertension, fibrosis, reproductive biology, and additional areas of biomedical research.

Phosphodiesterase 5A Antibody supports the detection and characterization of cGMP Binding Phosphodiesterase in

studies of cyclic nucleotide signaling, nitric oxide-mediated pathways, vascular physiology, and other biological processes regulated by PDE5A expression.

To learn more about this target, explore our PDE5A Antibody / cGMP Specific Phosphodiesterase Antibody page featuring additional information and antibodies for detecting PDE5A.

Application Notes

Optimal dilution of the Phosphodiesterase 5A Antibody / cGMP Binding Phosphodiesterase Antibody should be determined by the researcher.

Immunogen

Amino acids LINGESGQAKRN were used as the immunogen for this PDE5 / Phosphodiesterase 5A antibody. This sequence is common to isoforms 1 and 2.

Storage

Aliquot and store the PDE5 / Phosphodiesterase 5A antibody at -20oC.

Alternate Names

cGMP Binding Phosphodiesterase antibody, PDE5A antibody, PDE5 antibody, cGMP Specific Phosphodiesterase antibody, Cyclic GMP Phosphodiesterase antibody, Phosphodiesterase Type 5 antibody

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