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PDE9A Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54895

Specification

PDE9A Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC**
Primary Accession	O76083
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**68493**

PDE9A Polyclonal Antibody - Additional Information

Gene ID 5152

Other Names
High affinity cGMP-specific 3', 5'-cyclic phosphodiesterase 9A, 3.1.4.35, PDE9A (HGNC:8795)

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. 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 ℃.

PDE9A Polyclonal Antibody - Protein Information

Name PDE9A (HGNC:8795)

Function
Specifically hydrolyzes the second messenger cGMP, which is a key regulator of many important physiological processes. Highly specific: compared to other members of the cyclic nucleotide phosphodiesterase family, has the highest affinity and selectivity for cGMP (PubMed:18757755, PubMed:21483814, PubMed:9624146). Specifically regulates natriuretic-peptide-dependent cGMP signaling in heart, acting as a regulator of cardiac hypertrophy in myocytes and muscle. Does not regulate nitric oxide-dependent cGMP in heart (PubMed:25799991).

Additional experiments are required to confirm whether its ability to hydrolyze natriuretic-peptide-dependent cGMP is specific to heart or is a general feature of the protein (Probable). In brain, involved in cognitive function, such as learning and long-term memory (By similarity).

Cellular Location
[Isoform PDE9A1]: Cell projection, ruffle membrane. Cytoplasm, perinuclear region. Golgi apparatus. Endoplasmic reticulum. Cell membrane, sarcolemma [Isoform PDE9A3]: Cytoplasm. Endoplasmic reticulum

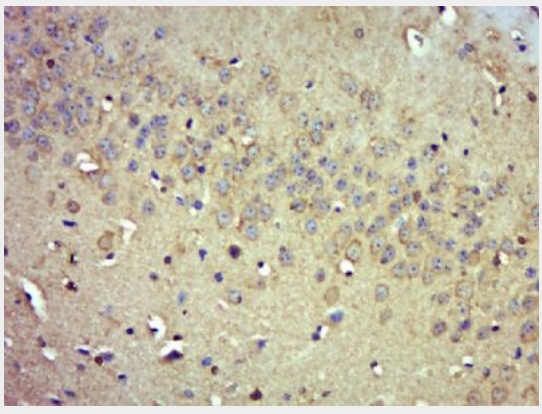
Tissue Location
Expressed in all tissues examined (testis, brain, small intestine, skeletal muscle, heart, lung, thymus, spleen, placenta, kidney, liver, pancreas, ovary and prostate) except blood (PubMed:9624146). Highest levels in brain, heart, kidney, spleen, prostate and colon. Isoform PDE9A12 is found in prostate (PubMed:12565835). In brain, present in the cortex, cerebellum, and subiculum (at protein level) (PubMed:22328573). In heart, primarily localizes to myocytes (PubMed:25799991).

PDE9A Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PDE9A Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); 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 (PDE9A) Polyclonal Antibody, Unconjugated (bs-12589R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.