

PDE9A Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS10154**Specification**

PDE9A Antibody (Internal) - Product Information

Application	IHC
Primary Accession	O76083
Reactivity	Human, Monkey, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	68kDa KDa

PDE9A Antibody (Internal) - Additional Information**Gene ID** 5152**Other Names**

High affinity cGMP-specific 3', 5'-cyclic phosphodiesterase 9A, 3.1.4.35, PDE9A

Target/Specificity

Human PDE9A. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

PDE9A Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

PDE9A Antibody (Internal) - 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:9624146, PubMed:18757755, PubMed:21483814). 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

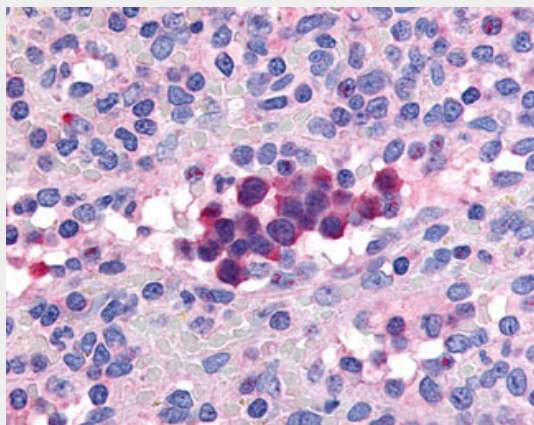
Expressed in all tissues examined (testis, brain, small intestine, skeletal muscle, heart, lung, thymus, spleen, placenta, kidney, liver, pancreas, ovary and prostate) except blood (PubMed:9624146). Highest levels in brain, heart, kidney, spleen, prostate and colon. Isoform PDE9A12 is found in prostate (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 Antibody (Internal) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PDE9A Antibody (Internal) - Images



Anti-PDE9A antibody ALS10154 IHC of human spleen.

PDE9A Antibody (Internal) - Background

Hydrolyzes the second messenger cGMP, which is a key regulator of many important physiological processes.

PDE9A Antibody (Internal) - References

Fisher D.A., et al. J. Biol. Chem. 273:15559-15564(1998).
Guipponi M., et al. Hum. Genet. 103:386-392(1998).

Rentero C.,et al.Biochem. Biophys. Res. Commun. 301:686-692(2003).
Wang P.,et al.Gene 314:15-27(2003).
Rentero C.,et al.BMC Mol. Biol. 7:39-39(2006).