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PDE11A Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14002a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9HCR9
Other Accession	NP_001070664.1, NP_001070665.1, NP_001070826.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33858
Calculated MW	104752
Antigen Region	34-63

Additional Information

Gene ID	50940
Other Names	Dual 3', 5'-cyclic-AMP and -GMP phosphodiesterase 11A, cAMP and cGMP phosphodiesterase 11A, PDE11A
Target/Specificity	This PDE11A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 34-63 amino acids from the N-terminal region of human PDE11A.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PDE11A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PDE11A {ECO:0000303|PubMed:10906126, ECO:0000312|HGNC:HGNC:8773}
Function	Plays a role in signal transduction by regulating the intracellular concentration of cyclic nucleotides cAMP and cGMP (PubMed:10725373,

PubMed:10906126, PubMed:11050148, PubMed:16330539). Catalyzes the hydrolysis of both cAMP and cGMP to 5'-AMP and 5'-GMP, respectively (PubMed:10725373, PubMed:10906126, PubMed:11050148).

Cellular Location Cytoplasm, cytosol.

Tissue Location Isoform 1 is present in prostate, pituitary, heart and liver. It is however not present in testis nor in penis, suggesting that weak inhibition by Tadalafil (Cialis) is not relevant (at protein level). Isoform 2 may be expressed in testis. Isoform 4 is expressed in adrenal cortex.

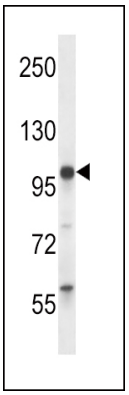
Background

The 3',5'-cyclic nucleotides cAMP and cGMP function as second messengers in a wide variety of signal transduction pathways. 3',5'-cyclic nucleotide phosphodiesterases (PDEs) catalyze the hydrolysis of cAMP and cGMP to the corresponding 5'-monophosphates and provide a mechanism to downregulate cAMP and cGMP signaling. This gene encodes a member of the PDE protein superfamily. Mutations in this gene are a cause of Cushing disease and adrenocortical hyperplasia. Multiple transcript variants encoding different isoforms have been found for this gene.

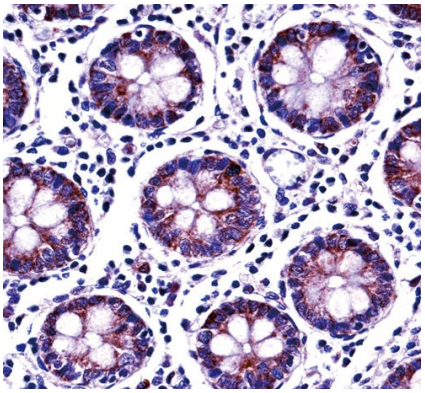
References

DeWan, A.T., et al. J. Allergy Clin. Immunol. 126(4):871-873(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Perlis, R.H., et al. Biol. Psychiatry 67(11):1110-1113(2010)
Bosker, F.J., et al. Mol. Psychiatry (2010) In press :

Images



PDE11A Antibody (N-term) (Cat. #AP14002a) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the PDE11A antibody detected the PDE11A protein (arrow).



PDE11A Antibody (N-term) (AP14002a)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PDE11A Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.