10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CNGA2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14486a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q16280
Other Accession	Q03041, NP_005131.1
Reactivity	Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32597
Calculated MW	76048
Antigen Region	190-218

Additional Information

Gene ID	1260
Other Names	Cyclic nucleotide-gated olfactory channel, Cyclic nucleotide-gated cation channel 2, Cyclic nucleotide-gated channel alpha-2, CNG channel alpha-2, CNG-2, CNG2, CNGA2, CNCA, CNCA1, CNCG2
Target/Specificity	This CNGA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 190-218 amino acids from the N-terminal region of human CNGA2.
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	CNGA2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CNGA2 {ECO:0000303|PubMed:11764791, ECO:0000312|HGNC:HGNC:2149}
Function	Pore-forming subunit of the olfactory cyclic nucleotide-gated channel.

	Operates in the cilia of olfactory sensory neurons where chemical stimulation of the odorant is converted to an electrical signal. Mediates odorant-induced cAMP-dependent Ca(2+) influx triggering neuron depolarization. The rise of intracellular Ca(2+) levels potentiates the olfactory response by activating Ca(2+)- dependent Cl(-) channels, but it also serves as a negative feedback signal to desensitize the channel for rapid adaptation to odorants. Conducts cAMP- and cGMP-gated ion currents, with permeability for monovalent and divalent cations. Also expressed in a subpopulation of sensory neurons of the main olfactory epithelium (type B cells), where it mediates Ca(2+) influx in response to hydrogen sulfide, and is required for defensive behavioral responses to this stimulus (By similarity).
Cellular Location	Cell projection, cilium membrane {ECO:0000250|UniProtKB:Q00195}; Multi-pass membrane protein

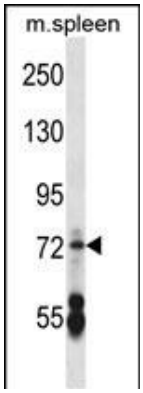
Background

The protein encoded by this gene represents the alpha subunit of a cyclic nucleotide-gated olfactory channel. The encoded protein contains a carboxy-terminal leucine zipper that mediates channel formation.

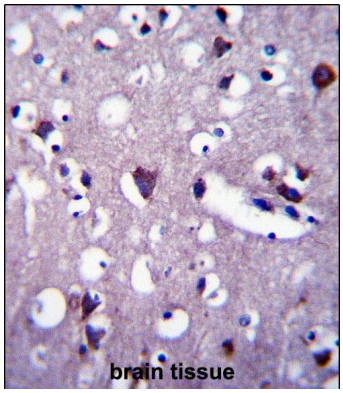
References

Qu, W., et al. J. Gen. Physiol. 127(4):375-389(2006)
Hofmann, F., et al. Pharmacol. Rev. 57(4):455-462(2005)
Yoo, D., et al. J. Biol. Chem. 279(8):6863-6873(2004)
Cheng, K.T., et al. Histochem. Cell Biol. 120(6):475-481(2003)
Trudeau, M.C., et al. J. Biol. Chem. 278(21):18705-18708(2003)

Images



CNGA2 Antibody (N-term) (Cat. #AP14486a) western blot analysis in mouse spleen tissue lysates (35ug/lane).This demonstrates the CNGA2 antibody detected the CNGA2 protein (arrow).



CNGA2 Antibody (N-term) (Cat. #AP14486a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CNGA2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Genetic dissection of pheromone processing reveals main olfactory system-mediated social behaviors in mice.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.