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

CNG-1β Polyclonal Antibody

Catalog # AP69179

Product Information

Application	WB, E
Primary Accession	Q14028
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	139678

Additional Information

Gene ID	1258
Other Names	CNGB1; CNCG2; CNCG3L; CNCG4; RCNC2; Cyclic nucleotide-gated cation channel beta-1; Cyclic nucleotide-gated cation channel 4; CNG channel 4; CNG-4; CNG4; Cyclic nucleotide-gated cation channel gamma; Cyclic nucleotide-gated cation channel mo
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

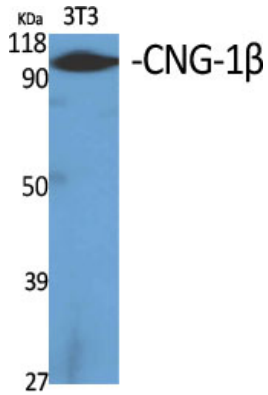
Name	CNGB1 {ECO:0000303|PubMed:34699778}
Function	Pore-forming subunit of the rod cyclic nucleotide-gated channel. Mediates rod photoresponses at dim light converting transient changes in intracellular cGMP levels into electrical signals. In the dark, cGMP levels are high and keep the channel open enabling a steady inward current carried by Na(+) and Ca(2+) ions that leads to membrane depolarization and neurotransmitter release from synaptic terminals. Upon photon absorption cGMP levels decline leading to channel closure and membrane hyperpolarization that ultimately slows neurotransmitter release and signals the presence of light, the end point of the phototransduction cascade (By similarity) (PubMed:34699778). 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 (By similarity). Conducts cGMP- and cAMP-gated ion currents, with permeability for monovalent and divalent cations. The selectivity for Ca(2+) over Na(+) increases with cGMP concentrations, whereas the selectivity among monovalent ions is independent of the cGMP levels (By similarity) (PubMed:34699778).
Cellular Location	Photoreceptor outer segment membrane {ECO:0000250|UniProtKB:E1AZ71}; Multi-pass membrane protein. Cell projection, cilium membrane {ECO:0000250|UniProtKB:A0A8I5ZN27, ECO:0000250|UniProtKB:E1AZ71}; Multi-pass membrane protein. Note=Localized in rod outer segment membranes. {ECO:0000250|UniProtKB:E1AZ71}

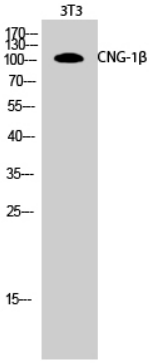
Background

Subunit of cyclic nucleotide-gated (CNG) channels, nonselective cation channels, which play important roles in both visual and olfactory signal transduction. When associated with CNGA1, it is involved in the regulation of ion flow into the rod photoreceptor outer segment (ROS), in response to light-induced alteration of the levels of intracellular cGMP.

Images



Western Blot analysis of various cells using CNG-1β Polyclonal Antibody



Western Blot analysis of 3T3 cells using CNG-1β Polyclonal Antibody

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