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CNGB3 Antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16105

Product Information

Application	WB
Primary Accession	Q9NQW8
Other Accession	NP_061971
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92167

Additional Information

Gene ID	54714
Alias Symbol	CNGB3,
Other Names	Cyclic nucleotide-gated cation channel beta-3, Cone photoreceptor cGMP-gated channel subunit beta, Cyclic nucleotide-gated cation channel modulatory subunit, Cyclic nucleotide-gated channel beta-3, CNG channel beta-3, CNGB3
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 &mu, l of distilled water. Final Anti-CNGB3 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	CNGB3 Antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CNGB3 {ECO:0000303|PubMed:37463923}
Function	Pore-forming subunit of the cone cyclic nucleotide-gated channel. Mediates cone photoresponses at bright 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.

	Conducts cGMP- and cAMP-gated ion currents, with permeability for monovalent and divalent cations.
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed specifically in the retina.

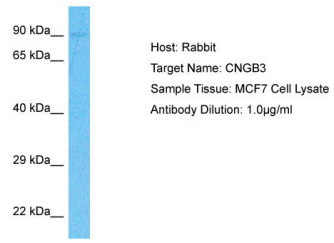
Background

Visual signal transduction is mediated by a G-protein coupled cascade using cGMP as second messenger. This protein can be activated by cGMP which leads to an opening of the cation channel and thereby causing a depolarization of rod photoreceptors. Induced a flickering channel gating, weakened the outward rectification in the presence of extracellular calcium, increased sensitivity for L-cis diltiazem and enhanced the cAMP efficiency of the channel when coexpressed with CNGA3 (By similarity). Essential for the generation of light-evoked electrical responses in the red-, green- and blue sensitive cones.

References

Kohl S.,et al.Hum. Mol. Genet. 9:2107-2116(2000).
Nusbaum C.,et al.Nature 439:331-335(2006).
Sundin O.H.,et al.Nat. Genet. 25:289-293(2000).
Shuart N.G.,et al.Nat. Commun. 2:457-457(2011).
Rojas C.V.,et al.Eur. J. Hum. Genet. 10:638-642(2002).

Images



Host: Rabbit
Target Name: CNGB3
Sample Tissue: MCF7 Whole Cell lysates
Antibody Dilution: 1.0µg/ml