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CNG-1 Polyclonal Antibody

Catalog # AP69178

Product Information

Application	WB, E
Primary Accession	P29973
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79126

Additional Information

Gene ID	1259
Other Names	CNGA1; CNCG; CNCG1; cGMP-gated cation channel alpha-1; Cyclic nucleotide-gated cation channel 1; Cyclic nucleotide-gated channel alpha-1; CNG channel alpha-1; CNG-1; CNG1; Cyclic nucleotide-gated channel; photoreceptor; Rod photoreceptor cG
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. 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	CNGA1 {ECO:0000303|PubMed:33651975, ECO:0000312|HGNC:HGNC:2148}
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. 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.
Cellular Location	Photoreceptor outer segment membrane {ECO:0000250|UniProtKB:P29974}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein.

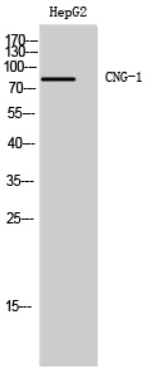
Note=Localized in rod outer segment membranes.
{ECO:0000250|UniProtKB:P29974}

Tissue Location Rod cells 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 cyclic GMP which leads to an opening of the cation channel and thereby causing a depolarization of rod photoreceptors.

Images



Western Blot analysis of HepG2 cells using CNG-1 Polyclonal Antibody

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