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# CNGB3 Antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16105

## Product Information

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

## Additional Information

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| **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

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| **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. |

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| | Conducts cGMP- and cAMP-gated ion currents, with permeability for monovalent and divalent cations. |
| **Cellular Location** | Photoreceptor outer segment membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Localized in cone outer segment membranes |
| **Tissue Location** | Expressed specifically in the retina. |

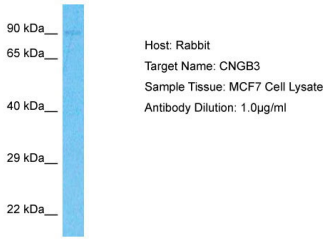
## Background

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


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