



## Rabbit Anti-CNG3 antibody

SL10772R

<b>Product Name:</b>	CNG3
<b>Chinese Name:</b>	视锥感光细胞环磷酸鸟苷门控Channel proteinCNG3抗体
<b>Alias:</b>	ACHM2; CCNC1; CCNCa; CCNCalpha; CNGCG3; CNG 3; CNG-3; CNG channel alpha 3; CNG channel alpha-3; CNG-3; CNG3; CNGA3; Cnga3 cyclic nucleotide gated channel alpha 3; CNGA3_HUMAN; Cone photoreceptor cGMP gated channel; Cone photoreceptor cGMP gated channel alpha subunit; Cone photoreceptor cGMP gated channel subunit alpha; Cone photoreceptor cGMP-gated channel subunit alpha; Cyclic nucleotide gated cation channel alpha 3; Cyclic nucleotide gated channel alpha 3; Cyclic nucleotide gated channel olfactory 3; Cyclic nucleotide gated channel rod photoreceptor subunit alpha; Cyclic nucleotide-gated cation channel alpha-3; Cyclic nucleotide-gated channel alpha-3.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Pig,Cow,Horse,Sheep,Guinea Pig,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	79kDa
<b>Cellular localization:</b>	The cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human CNG3:601-694/694
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**PubMed:**

[PubMed](#)

Cyclic nucleotide-gated (CNG) cation channels are heteromeric complexes made up of principal alpha and modulatory beta subunits. The alpha subunits consist of CNG1-3 and form functional cation channels by themselves. The beta subunits consist of CNG4-6 and, unlike the alpha subunits, do not form functional channels, but rather modify the properties of channels. CNG channels are essential components of olfactory and visual transduction. In olfactory neurons, CNG2, CNG4.3 and CNG5 form Ca<sup>2+</sup> permeable channels, which open and depolarize the cell in response to cAMP. In rod photoreceptors, CNG1 and CNG4.1 combine to form Ca ion permeable channels, which give rise to a current in response to cGMP. CNG3 and CNG6 are expressed in cone receptors and may combine to form a native cGMP-activated channel. CNG channels have been implicated in other areas. CNG1 is also expressed in medium-sized and small-sized arteries, suggesting a role for CNG in the regulation of arterial blood pressure and of blood supply to different regions. CNG1, CNG4.1 and CNG4.2 have been detected in the rat pineal gland. CNG2, CNG4.3 and CNG5 are present in GT1 cell lines and may play a role in the secretion of gonadotropin-releasing hormone.

**Function:**

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 cone 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 efficacy of the channel when coexpressed with CNGB3 (By similarity). Essential for the generation of light-evoked electrical responses in the red-, green- and blue sensitive cones.

**Subunit:**

Tetramer formed of two CNGA3 and two CNGB3 modulatory subunits.

**Subcellular Location:**

Membrane; Multi-pass membrane protein.

**Tissue Specificity:**

Prominently expressed in retina.

**Post-translational modifications:**

Defects in CNGA3 are the cause of achromatopsia type 2 (ACHM2) [MIM:216900]; also known as total colorblindness or rod monochromacy (RMCH2). ACHM2 is an autosomal recessive condition characterized by day blindness and photophobia. In ACHM2 patients the cones are defective and the subjects see better at night.

**Similarity:**

Belongs to the cyclic nucleotide-gated cation channel (TC 1.A.1.5) family. CNGA3 subfamily.

Contains 1 cyclic nucleotide-binding domain.

**Product Detail:**

**SWISS:**  
Q16281

**Gene ID:**  
1261

**Database links:**

[Entrez Gene: 1261](#)Human

[Omir: 600053](#)Human

[SwissProt: Q16281](#)Human

[Unigene: 234785](#)Human

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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