SunLong Biotech Co.,LTD
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Rabbit Anti-CNGB1 antibody

SL12093R

Product Name	CNGB1
Chinese Name	环磷酸鸟苷门控 Channel proteinCNG4 抗体
Alias	CNG4; GAR1; GARP; RP45; CNCG2; CNCG4; GARP2; RCNC2; RCNCb; CNCG3L; CNGB1B; RCNCbeta; CNG-4; cyclic nucleotide gated channel subunit beta 1; Cyclic nucleotide-gated cation channel beta-1; Cyclic nucleotide-gated cation channel 4; CNG channel 4; Cyclic nucleotide-gated cation channel gamma; Cyclic nucleotide-gated cation channel modulatory subunit; CNG channel beta-1; Glutamic acid-rich protein; CNGB1_HUMAN.
Research Area	Neurobiology Channel protein The cell membrane 受体 G protein-coupled receptor G protein signal
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted: Human, Mouse, Rat, Pig, Cow, Horse, Rabbit, Sheep,)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	140kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human CNGB1: 856-960/1251 <Extracellular>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles.

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Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	Cyclic nucleotide-gated (CNG) cation channels are heteromeric complexes made up of principal alpha and modulatory beta subunits (1,2). The alpha subunits consist of CNG1-3 and form functional cation channels by themselves (1,2). The beta subunits consist of CNG4-6 and, unlike the alpha subunits, do not form functional channels, but rather modify the properties of channels (1,2). CNG channels are essential components of olfactory and visual transduction (1,2). In olfactory neurons, CNG2, CNG4.3 and CNG5 form Ca2+ permeable channels, which open and depolarize the cell in response to cAMP (1-3). In rod photoreceptors, CNG1 and CNG4.1 combine to form Ca ion permeable channels, which give rise to a current in response to cGMP (1-3). CNG3 and CNG6 are expressed in cone receptors and may combine to form a native cGMP-activated channel (2,3). CNG channels have been implicated in other areas (4-6). 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 (4). CNG1, CNG4.1 and CNG4.2 have been detected in the rat pineal gland (5). CNG2, CNG4.3 and CNG5 are present in GT1 cell lines and may play a role in the secretion of gonadotropin-releasing hormone (6). **Function:** GARP is a 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. Defects in GARP are the cause of retinitis pigmentosa type 45 (RP45). RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well. **Subunit:** Heterooligomeric complex with CNGA1. **Subcellular Location:** Membrane; Multi-pass membrane protein. **Tissue Specificity:** Prominently expressed in retina. **DISEASE:** Defects in CNGB1 are the cause of retinitis pigmentosa type 45 (RP45) [MIM:613767]. RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well.

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Similarity:
Belongs to the cyclic nucleotide-gated cation channel (TC 1.A.1.5) family. CNGB1 subfamily. Contains 1 cyclic nucleotide-binding domain.

SWISS:
Q14028

Gene ID:
1258

Database links:

Entrez Gene: 1258 Human

Entrez Gene: 333329 Mouse

Entrez Gene: 83686 Rat

SwissProt: Q14028 Human

wissProt: O35788 Rat