

Product datasheet for **TA328958**

Cnga3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)GHGFSPDRENSEDASKAD, corresponding to amino acid residues 594-611 of rat CNGA3. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cyclic nucleotide gated channel alpha 3
Database Link:	NP_445947 Entrez Gene 85257 Rat



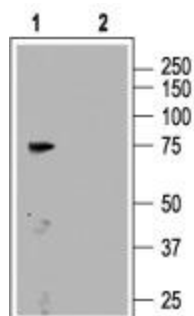
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Background:

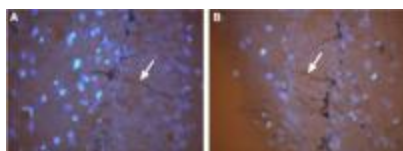
Cyclic nucleotides are important second messengers in many cellular functions such as visual transduction, and relaxation of smooth muscle cells. Cyclic nucleotides exert their cellular functions through three major classes of cellular receptors, one of them is the cyclic nucleotide-gated (CNG) channels. The CNG channels are non-selective cation channels facilitating the influx of Na⁺ and Ca²⁺ ions, following activation by intracellular cyclic nucleotides. In vertebrates, six members of the CNG channel family were identified and grouped according to sequence homology into two subtypes, CNGA and CNGB. The native CNG channels are composed of a and b subunits in a tetrameric configuration. To date, four types of the a subunits (CNGA1-4) and two b subunits (CNGB1, CNGB3) have been characterized. Each subunit contains 6 TM domains and intracellular cAMP or cGMP binding domains but, are also modulated by other factors including phosphorylation and calmodulin. In a heterologous expression system, only the a subunits are capable of forming functional homomeric channels. CNG ion channels are essential in visual and olfactory signal transduction. The CNGA3 channel is primarily expressed in cone photoreceptors where it participates in light transduction (daylight and color vision). CNG channels expression was also found in the hippocampus, cortex, Purkinje cells and other neural derived tissues. CNGA3 was also detected in kidney, heart, brain and sperm, where it was thought to have an important role in the control of sperm motility and fertility. However, CNGA3-deficient mice were shown to be as fertile and produce at normal rate as wild types.

Synonyms:

ACHM2; CCNC1; CCNCa; CCNCalpha; CNCG3; CNG-3; CNG3; OTTHUMP00000161120

Product images:

Western blot analysis of rat brain membranes: 1. Anti-CNGA3 antibody (APC-060), (1:200). 2. Anti-CNGA3 antibody, preincubated with the control peptide antigen.



Expression of CNGA3 in rat brain. Immunohistochemical staining of frozen rat hippocampal dentate gyrus (DG) sections using Anti-CNGA3 antibody. Neurons were found in the hilus of the DG with dendritic processes extending across the granule cell layer (arrows) both in the dorsal blade (A) and ventral blade (B). Diaminobenzidine color product is blue-black (arrows). DAPI is used as the counterstain (silver).