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Anti-CNGA1 Antibody

Catalog # AP60902

Product Information

Application	WB, IHC
Primary Accession	P29973
Reactivity	Human, Mouse, Rat, Pig, Chicken, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79126

Additional Information

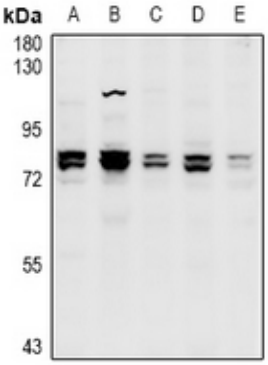
Gene ID	1259
Other Names	CNCG; CNCG1; cGMP-gated cation channel alpha-1; Cyclic nucleotide-gated cation channel 1; Cyclic nucleotide-gated channel alpha-1; CNG channel alpha-1; CNG-1; CNG1; Cyclic nucleotide-gated channel photoreceptor; Rod photoreceptor cGMP-gated channel subunit alpha
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CNGA1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

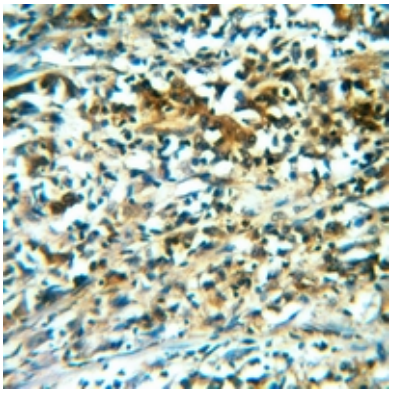
Name	CNGA1 {ECO:0000303|PubMed:33651975, ECO:0000312|HGNC:HGNC:2148}
Function	Pore-forming subunit of the rod cyclic nucleotide-gated channel. Mediates rod photoresponses at dim light converting transient changes in intracellular cGMP levels into electrical signals. In the dark, cGMP levels are high 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.

Images



Western blot analysis of CNGA1 expression in CT26 (A), PC12 (B), A549 (C), MCF7 (D), LO2 (E) whole cell lysates. (Predicted band size: 79 kD; Observed band size: 79 kD)



Immunohistochemical analysis of CNGA1 staining in human colorectal cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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