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Anti-CNGB1 Antibody

Catalog # AP59988

Product Information

Application	WB
Primary Accession	Q14028
Reactivity	Human, Mouse, Rat, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	139678

Additional Information

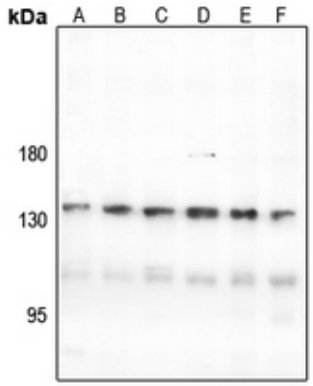
Gene ID	1258
Other Names	CNCG2; CNCG3L; CNCG4; RCNC2; Cyclic nucleotide-gated cation channel beta-1; Cyclic nucleotide-gated cation channel 4; CNG channel 4; CNG-4; CNG4; Cyclic nucleotide-gated cation channel gamma; Cyclic nucleotide-gated cation channel modulatory subunit; Cyclic nucleotide-gated channel beta-1; CNG channel beta-1; Glutamic acid-rich protein; GARP
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CNGB1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
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	CNGB1 {ECO:0000303|PubMed:34699778}
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 (By similarity) (PubMed:34699778). Pore- forming subunit of the olfactory cyclic nucleotide-gated channel. Operates in the cilia of olfactory sensory neurons where chemical stimulation of the odorant is converted to an electrical signal. Mediates odorant-induced

	cAMP-dependent Ca(2+) influx triggering neuron depolarization. The rise of intracellular Ca(2+) levels potentiates the olfactory response by activating Ca(2+)-dependent Cl(-) channels, but it also serves as a negative feedback signal to desensitize the channel for rapid adaptation to odorants (By similarity). 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 (By similarity) (PubMed:34699778).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:A0A8I5ZN27}; Multi-pass membrane protein. Cell projection, cilium membrane {ECO:0000250|UniProtKB:A0A8I5ZN27, ECO:0000250|UniProtKB:E1AZ71}; Multi-pass membrane protein

Images



Western blot analysis of CNGB1 expression in CT26 (A), HCT116 (B), A375 (C), LO2 (D), MCF7 (E), K562 (F) whole cell lysates. (Predicted band size: 139 kD; Observed band size: 139 kD)