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Rabbit Anti-CACNA1F antibody

SL11245R

Product Name:	CACNA1F
Chinese Name:	钙离子通道a1F亚型抗体
Alias:	CACNA 1F; CACNAF; CACNAF1; Calcium channel voltage dependent alpha 1F subunit; Calcium channel voltage dependent L type alpha 1F subunit; Cav1.4; Cav1.4alpha1; COD 3; COD3; CORDX 3; CORDX; CORDX3; CSNB2A; CSNBX 2; CSNBX2; JM 8; JM8; JMC 8; JMC8; Voltage ated calcium channel subunit alpha Cav1.4; Voltage ependent L ype calcium channel subunit alpha F; CAC1F_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Sheep,
Applications:	ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	221kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CACNA1F:1001-1100/1977<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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
Product Detail:	Voltage-dependent Ca2+ channels mediate Ca2+ entry into excitable cells in response to membrane depolarization, and they are involved in a variety of Ca2+-dependent processes, including muscle contraction, hormone or neurotransmitter release and gene

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expression.Ca2+ currents are characterized on the basis of their biophysical and pharmacologic properties and include L-, N-, T-, P-, Q-, and R- types. L-type Ca2+ currents initiate muscle contraction, endocrine secretion, and gene transcription, and can be regulated through second-messenger activated protein phosphorylation pathways. L-type calcium channels may form macromolecular signaling complexes with G protein-coupled receptors, thereby enhancing the selectivity of regulating specific targets.

Function:
CACNA1F (Calcium channel, voltage-dependent, L type, alpha 1F subunit) is a subunit of a voltage-dependent calcium channel complex. Voltage-gated calcium channels mediate the entry of calcium ions into excitable cells. CACNA1F gives rise to L-type calcium currents. Long-lasting (L-type) calcium channels belong to the "high-voltage activated" (HVA) group and are blocked by dihydropyridines (DHP).

Subunit:
Voltage-dependent calcium channels are multisubunit complexes, consisting of alpha-1, alpha-2, beta and delta subunits in a 1:1:1:1 ratio. The channel activity is directed by the pore-forming and voltage-sensitive alpha-1 subunit. In many cases, this subunit is sufficient to generate voltage-sensitive calcium channel activity. The auxiliary subunits beta and alpha-2/delta linked by a disulfide bridge regulate the channel activity. Interacts (via IQ domain) with CABP4; in a calcium independent manner (By similarity).

Subcellular Location:
Membrane; Multi-pass membrane protein.

Tissue Specificity:
Expression in skeletal muscle and retina.

DISEASE:
Defects in CACNA1F are the cause of congenital stationary night blindness type 2A (CSNB2A) [MIM:300071]. Congenital stationary night blindness is a non-progressive retinal disorder characterized by impaired night vision.
Defects in CACNA1F are the cause of cone-rod dystrophy X-linked type 3 (CORDX3) [MIM:300476]. CORDs are inherited retinal dystrophies belonging to the group of pigmentary retinopathies. CORDs are characterized by retinal pigment deposits visible on fundus examination, predominantly in the macular region, and initial loss of cone photoreceptors followed by rod degeneration. This leads to decreased visual acuity and sensitivity in the central visual field, followed by loss of peripheral vision. Severe loss of vision occurs earlier than in retinitis pigmentosa.
Defects in CACNA1F are the cause of Aaland island eye disease (AIED) [MIM:300600]; also known as Forsius-Eriksson type ocular albinism. On the Aaland island in the Baltic Sea, AIED is an X-linked recessive retinal disease characterized by a combination of fundus hypopigmentation, decreased visual acuity due to foveal hypoplasia, nystagmus, astigmatism, protan color vision defect, myopia, and defective

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	dark adaptation. Except for progression of axial myopia, the disease can be considered to be a stationary condition. Electroretinography reveals abnormalities in both photopic and scotopic functions. **Similarity:** Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family. CACNA1F subfamily. **SWISS:** O60840 **Gene ID:** 778 **Database links:** Entrez Gene: 778 Human Omim: 300110 Human SwissProt: O60840 Human Unigene: 632799 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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