CAC1F Rabbit pAb

CatalogNo: YN1525

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse

Applications
- WB,ELISA

MW
- 217kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-2000
ELISA 1:5000-20000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from human protein . at AA range: 140-220
Specificity	CAC1F Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name	CACNA1F CACNAF1

Protein Name Voltage-dependent L-type calcium channel subunit alpha-1F (Voltage-gated calcium channel subunit alpha Cav1.4)

Organism	Gene ID	UniProt ID
Human	778;	O60840;
Mouse		Q9JIS7;

Cellular Localization Membrane; Multi-pass membrane protein.

Tissue specificity Expression in skeletal muscle and retina (PubMed:10873387). Isoform 4 is expressed in retina (PubMed:27226626).

Function Disease:Defects in CACNA1F are the cause of Aaland island eye disease (AIED) [MIM:300600]; also called 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 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.,Disease: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.,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.,Domain:Each of the four internal repeats contains five hydrophobic transmembrane segments (S1, S2, S3, S5, S6) and one positively charged transmembrane segment (S4). S4 segments probably represent the voltage-sensor and are characterized by a series of positively charged amino acids at every third position.,Function:Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1F gives rise to L-type calcium currents. Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group. They are blocked by dihydropyridines (DHP), phenylalkylamines, benzothiazepines, and by omega-agatoxin-IIIA (omega-Aga-IIIA). They are however insensitive to omega-conotoxin-GVIA (omega-CTx-GVIA) and omega-agatoxin-IVA (omega-Aga-IVA).,online information:Retina International's Scientific Newsletter,similarity:Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family.,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 with CABP4.,tissue specificity:Expression in skeletal muscle and retina.,

Validation Data

Contact information

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