

Anti-CACNA1S antibody ab96413

★★★★☆ [1 Abreviews](#) [2 图像](#)

概述

产品名称	Anti-CACNA1S抗体
描述	兔多克隆抗体to CACNA1S
宿主	Rabbit
经测试应用	适用于: WB, IHC-P
种属反应性	与反应: Human 预测可用于: Mouse, Rat, Rabbit, Cat 
免疫原	Recombinant fragment, corresponding to a region within the internal sequence amino acids 544-855 of Human CACNA1S.
阳性对照	293T, A431, H1299, HeLa, HepG2, MOLT4, Raji cell lysates Cal27 xenograft (IHC)
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 89.99% PBS, 10% Glycerol (glycerin, glycerine)
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee

Abpromise™ 承诺保证使用ab96413于以下的经测试应用

“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (1)	1/500 - 1/3000. Predicted molecular weight: 212 kDa.
IHC-P		1/100 - 1/500. Antigen retrieval is not essential but may optimise staining.

靶标

功能

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-1S 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). Calcium channels containing the alpha-1S subunit play an important role in excitation-contraction coupling in skeletal muscle.

组织特异性

Skeletal muscle specific.

疾病相关

Defects in CACNA1S are the cause of periodic paralysis hypokalemic type 1 (HOKPP1) [MIM:170400]; also designated HYPOPP. HOKPP1 is an autosomal dominant disorder manifested by episodic flaccid generalized muscle weakness associated with falls of serum potassium levels.

Defects in CACNA1S are the cause of malignant hyperthermia susceptibility type 5 (MHS5) [MIM:601887]; an autosomal dominant disorder that is potentially lethal in susceptible individuals on exposure to commonly used inhalational anesthetics and depolarizing muscle relaxants.

Defects in CACNA1S are the cause of susceptibility to thyrotoxic periodic paralysis type 1 (TTPP1) [MIM:188580]. A sporadic muscular disorder characterized by episodic weakness and hypokalemia during a thyrotoxic state. It is clinically similar to hereditary hypokalemic periodic paralysis, except for the fact that hyperthyroidism is an absolute requirement for disease manifestation. The disease presents with recurrent episodes of acute muscular weakness of the four extremities that vary in severity from paresis to complete paralysis. Attacks are triggered by ingestion of a high carbohydrate load or strenuous physical activity followed by a period of rest. Thyrotoxic periodic paralysis can occur in association with any cause of hyperthyroidism, but is most commonly associated with Graves disease.

序列相似性

Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family. CACNA1S subfamily.

结构域

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.

The loop between repeats II and III interacts with the ryanodine receptor, and is therefore important for calcium release from the endoplasmic reticulum necessary for muscle contraction.

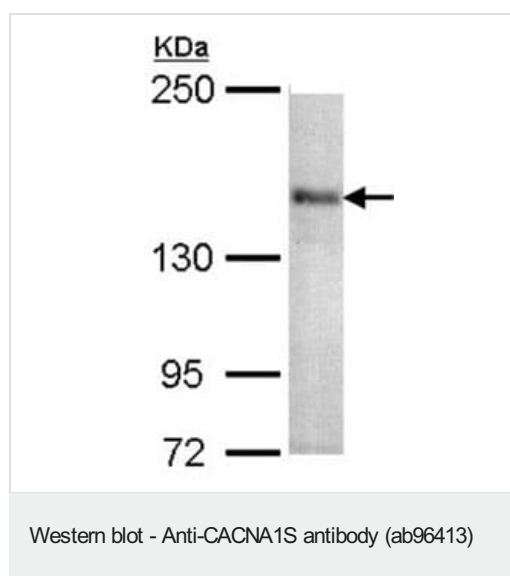
翻译后修饰

Phosphorylation by PKA activates the calcium channel.

细胞定位

Membrane.

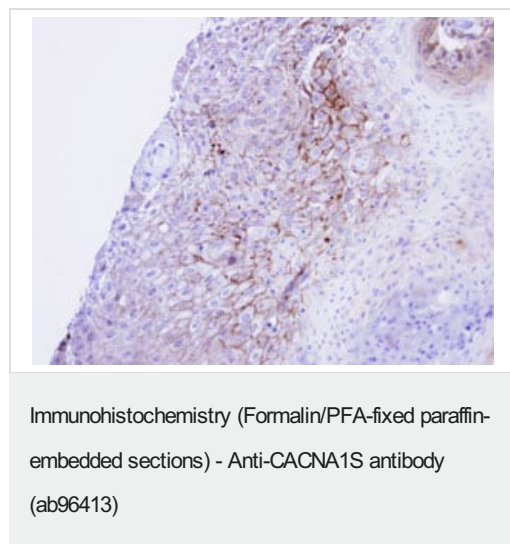
图片



Anti-CACNA1S antibody (ab96413) at 1/1000 dilution + 293T whole cell lysate at 30 μ g

Predicted band size: 212 kDa

5% SDS PAGE



Immunohistochemical analysis of paraffin-embedded Cal27 xenograft, using ab96413 at 1:100 dilution.

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