

Rabbit CACNA1S Polyclonal Antibody | anti-CACNA1S antibody

Anti-CACNA1S Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125682	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

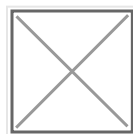
PRODUCT SYNONYMS

CACNA1S; Polyclonal Antibody; Anti-CACNA1S Antibody; CACH1; CACN1; CACNL1A3; Voltage-dependent L-type calcium channel subunit alpha-1S; Calcium channel; L type; alpha-1 polypeptide; isoform 3; skeletal muscle; Voltage-gated calcium channel subunit alpha Cav1. 1; calcium voltage-gated channel subunit alpha1 S; anti-CACNA1S antibody

PRODUCT SPECIFICATIONS

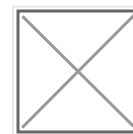
Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for CACNA1S detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.005mg NaN3.
Applicable Applications for anti-CACNA1S antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human CACNA1S recombinant protein (Position: E1583-C1779).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of U937 cells using anti-CACNA1S antibody (AAA125682). Overlay histogram showing U937 cells stained with AAA125682 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CACNA1S Antibody (AAA125682, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of CACNA1S using anti-CACNA1S antibody (AAA125682). CACNA1S was detected in paraffin-embedded section of rat skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-CACNA1S Antibody (AAA125682) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of CACNA1S using anti-CACNA1S antibody (AAA125682). CACNA1S was detected in paraffin-embedded section of human skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-CACNA1S Antibody (AAA125682) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of CACNA1S using anti-CACNA1S antibody (AAA125682). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: monkey skeletal muscle tissue lysates Lane 2: rat skeletal muscle tissue lysates Lane 3: mouse skeletal muscle tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-CACNA1S antigen affinity purified polyclonal antibody (Catalog # AAA125682) at 0. 5 µg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CACNA1S at approximately 220KD. The expected band size for CACNA1S is at 220KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CACNA1S antibody	Cav1. 1 also known as the calcium channel, voltage-dependent, L type, alpha 1S subunit, (CACNA1S), is a protein which in humans is encoded by the CACNA1S gene. This gene encodes one of the five subunits of the slowly inactivating L-type voltage-dependent calcium channel in skeletal muscle cells. Mutations in this gene have been associated with hypokalemic periodic paralysis, thyrotoxic periodic paralysis and malignant hyperthermia susceptibility.
References	- Boerman, R. H., Ophoff, R. A., Links, T. P., van Eijk, R., Sandkuijl, L. A., Elbaz, A., Vale-Santos, J. E., Wintzen, A. R., van Deutekom, J. C., Isles, D. E., Fontaine, B., Padberg, G. W., Frants, R. R. Mutation in DHP receptor alpha-1 subunit (CACLN1A3) (sic) gene in a Dutch family with hypokalaemic periodic paralysis. J. Med. Genet. 32: 44-47, 1995. - Campbell, K. P., Leung, A. T., Sharp, A. H. The biochemistry and molecular biology of the dihydropyridine-sensitive calcium channel. Trends Neurosci. 11: 425-430, 1988. - Catterall, W. A. Functional subunit structure of voltage-gated calcium channels. Science 253: 1499-1500, 1991.

NCBI AND UNIPROT INFORMATION

NCBI GI #	110349767
NCBI GeneID	779
NCBI Accession #	NP_000060
NCBI GenBank Nucleotide #	NM_000069
UniProt Accession #	Q13698 ; Q12896 ; Q13934 ; A4IF51 ; B1ALM2
Molecular Weight	212,350 Da
NCBI Official Full Name	voltage-dependent L-type calcium channel subunit alpha-1S
NCBI Official Synonym Full Names	calcium channel, voltage-dependent, L type, alpha 1S subunit
NCBI Official Symbol	CACNA1S
NCBI Official Synonym Symbols	MHS5; HOKPP; TTPP1; Cav1.1; HOKPP1; hypoPP; CCHL1A3; CACNL1A3
NCBI Protein Information	voltage-dependent L-type calcium channel subunit alpha-1S; calcium channel, L type, alpha 1 polypeptide, isoform 3 (skeletal muscle, hypokalemic periodic paralysis); dihydropyridine receptor; dihydropyridine-sensitive L-type calcium channel alpha-1 subunit
UniProt Protein Name	Voltage-dependent L-type calcium channel subunit alpha-1S
UniProt Gene Name	CACNA1S
UniProt Synonym Gene Names	CACH1; CACN1; CACNL1A3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/cacna1s-antibody-direct-elisa-flow-cytometry-immunohistochemistry-western-blot-elisa/125682>