Mouse anti-Human Cav3.2 Monoclonal Antibody | anti-CACNA1H antibody

CaV3.2 Antibody: FITC

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103008	**Mouse**	**Human**	**Immunofluorescence, Immunocytochemistry, Immunoprecipitation, Western Blot**

PRODUCT SYNONYMS

Cav3.2; Monoclonal Antibody; CaV3.2 Antibody: FITC; CACNA1H; CACNA1HB; calcium channel; voltage-dependent; T type; alpha 1H subunit; alpha 1Hb subunit; ECA6; EIG6; FLJ90484; Low-voltage-activated calcium channel alpha1 3.2 subunit; anti-CACNA1H antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Clone Number	S55-10
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	2347
Applicable Applications for anti-CACNA1H antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), IP (Immunoprecipitation), WB (Western Blot)
Conjugate	FITC
Storage Buffer	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES



IHC (Immunohiostchemistry)
Immunohistochemistry analysis using Mouse Anti-CaV3.2 Calcium channel Monoclonal Antibody, Clone S55-10. Tissue: frozen brain section. Species: human. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-CaV3.2 Calcium channel Monoclonal Antibody at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 ul for 5 minutes at RT.



IHC (Immunohistochemistry)
Immunohistochemistry analysis using Mouse Anti-CaV3.2 Calcium Channel Monoclonal Antibody, Clone S55-10. Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CaV3.2 Calcium Channel Monoclonal Antibody at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

ADDITIONAL INFORMATION

Related Product Information for anti-CACNA1H antibody	**Background Info:** Detects ~260kDa. No cross-reactivity against Cav1.3 or Cav3.1 **Scientific Background:** Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient (1). They are present in the membranes that surround all biological cells because their main function is to regulate the flow of ions across this membrane. Whereas some ion channels permit the passage of ions based on charge, others conduct based on a ionic species, such as sodium or potassium. Furthermore, in some ion channels, the passage is governed by a gate which is controlled by chemical or electrical signals, temperature, or mechanical forces. There are a few main classifications of gated ion channels. There are voltage- gated ion channels, ligand-gated, other gating systems and finally those that are classified differently, having more exotic characteristics. The first are voltage- gated ion channels which open and close in response to membrane potential. These are then separated into sodium, calcium, potassium, proton, transient receptor, and cyclic nucleotide-gated channels; each of which is responsible for a unique role. Ligand-gated ion channels are also known as ionotropic receptors, and they open in response to specific ligand molecules binding to the extracellular domain of the receptor protein. The other gated classifications include activation and inactivation by second messengers, inward-rectifier potassium channels, calcium-activated potassium channels, two-pore-domain potassium channels, light-gated channels, mechano-sensitive ion channels and cyclic nucleotide-gated channels. Finally, the other classifications are based on less normal characteristics such as two-pore channels, and transient receptor potential channels (2). Specifically, CaV3.2 is a protein which in humans is encoded by the CACNA1H gene. Studies suggest certain mutations in this gene lead to childhood absence epilepsy (3, 4). Studies also suggest that the up-regulations of CaV3.2 may participate in the progression of prostate cancer toward an androgen-independent stage (5).
Product Categories/Family for anti-CACNA1H antibody	Ion Channels; Neuroscience
References	1. Hille B. (2001) Ion Channels of Excitable Membranes, 3rd Ed., Sinauer Associated Inc.:Sunderland, MA USA. 2. www.iochannels.org 3. Chen Y., et al. (2003) Ann. Neurol. 54(2): 239-43. 4. Khosravani H., et al. (2004) J Biol Chem. 279(11): 9681- 9684. 5. Gackiere F., et al. (2008) J Biol Chem. 283(28): 19872.

NCBI AND UNIPROT INFORMATION

NCBI GI #	53832011
NCBI GeneID	8912
NCBI Accession #	NP_001005407.1
NCBI GenBank Nucleotide #	NM_001005407.1
UniProt Accession #	O95180; O95802; Q8WWI6; Q96QI6; Q96RZ9; Q9NYY4; Q9NYY5; B5ME00; F8WFD1
Molecular Weight	258,545 Da
NCBI Official Full Name	voltage-dependent T-type calcium channel subunit alpha-1H isoform b
NCBI Official Synonym Full Names	calcium channel, voltage-dependent, T type, alpha 1H subunit
NCBI Official Symbol	CACNA1H
NCBI Official Synonym Symbols	ECA6; EIG6; Cav3.2; CACNA1HB
NCBI Protein Information	voltage-dependent T-type calcium channel subunit alpha-1H; voltage-gated calcium channel alpha subunit Cav3.2; voltage-gated calcium channel alpha subunit CavT.2; voltage-gated calcium channel subunit alpha Cav3.2; low-voltage-activated calcium channel alpha13.2 subunit; low-voltage-activated calcium channel alpha1 3.2 subunit; voltage dependent t-type calcium channel alpha-1H subunit; calcium channel, voltage-dependent, T type, alpha 1Hb subunit
UniProt Protein Name	Voltage-dependent T-type calcium channel subunit alpha-1H
UniProt Gene Name	**CACNA1H**
UniProt Entry Name	CAC1H_HUMAN

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/monoclonal/cav32-antibody-clone-s55-10-immunofluorescence-immunocytochemistry-immunoprecipitation-western-blot-elisa/103008