

L-type Ca⁺⁺ CP α1C (H-280): sc-25686

BACKGROUND

Voltage-dependent Ca⁺⁺ channels mediate Ca⁺⁺ entry into excitable cells in response to membrane depolarization, and they are involved in a variety of Ca⁺⁺-dependent processes, including muscle contraction, hormone or neurotransmitter release and gene expression. Calcium channels are highly diverse, multimeric complexes composed of an α-1 subunit, an intracellular β-subunit, a disulfide linked α-2/δ subunit and a transmembrane γ-subunit. Ca⁺⁺ currents are characterized on the basis of their biophysical and pharmacologic properties and include L-, N-, T-, P-, Q-, and R- types. L-type Ca⁺⁺ 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.

CHROMOSOMAL LOCATION

Genetic locus: CACNA1C (human) mapping to 12p13.33; Cacna1c (mouse) mapping to 6 F1.

SOURCE

L-type Ca⁺⁺ CP α1C (H-280) is a rabbit polyclonal antibody raised against amino acids 1721-2000 mapping within an internal region of L-type Ca⁺⁺ CP α1C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

L-type Ca⁺⁺ CP α1C (H-280) is recommended for detection of L-type Ca⁺⁺ CP α1C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for L-type Ca⁺⁺ CP α1C siRNA (h): sc-42688, L-type Ca⁺⁺ CP α1C siRNA (m): sc-42689, L-type Ca⁺⁺ CP α1C shRNA Plasmid (h): sc-42688-SH, L-type Ca⁺⁺ CP α1C shRNA Plasmid (m): sc-42689-SH, L-type Ca⁺⁺ CP α1C shRNA (h) Lentiviral Particles: sc-42688-V and L-type L-type Ca⁺⁺ CP α1C shRNA (m) Lentiviral Particles: sc-42689-V.

Molecular Weight of L-type Ca⁺⁺ CP α1C short form: 164 kDa.

Molecular Weight of L-type Ca⁺⁺ CP α1C long form: 190 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263.

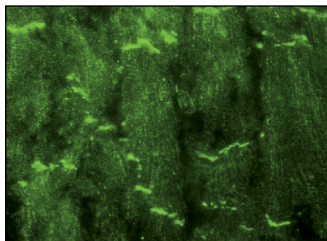
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



L-type Ca⁺⁺ CP α1C (H-280): sc-25686. Immunofluorescence staining of normal mouse heart frozen section showing membrane staining.

SELECT PRODUCT CITATIONS

- Gupta, S., et al. 2009. Voltage gated calcium channels negatively regulate protective immunity to *Mycobacterium tuberculosis*. PLoS ONE 4: e3505.
- Marques-da-Silva, D., et al. 2010. L-type calcium channels and cytochrome β5 reductase are components of protein complexes tightly associated with lipid rafts microdomains of the neuronal plasma membrane. J. Proteomics 73: 1502-1510.
- Ronkainen, J.J., et al. 2011. Ca²⁺-calmodulin-dependent protein kinase II represses cardiac transcription of the L-type calcium channel 1C-subunit gene (*Cacna1c*) by DREAM translocation. J. Physiol. 589: 2669-2686.
- Roche, J.A., et al. 2011. Unmasking potential intracellular roles for dysferlin through improved immunolabeling methods. J. Histochem. Cytochem. 59: 964-975.
- Marques-da-Silva, D. and Gutierrez-Merino, C. 2012. L-type voltage-operated calcium channels, N-methyl-D-aspartate receptors and neuronal nitric-oxide synthase form a calcium/redox nano-transducer within lipid rafts. Biochem. Biophys. Res. Commun. 420: 257-262.
- Touw, K., et al. 2012. Altered calcium signaling in colonic smooth muscle of type 1 diabetic mice. Am. J. Physiol. Gastrointest. Liver Physiol. 302: G66-G76.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **L-type Ca⁺⁺ CP α1C (D-6): sc-398433**, our highly recommended monoclonal alternative to L-type Ca⁺⁺ CP α1C (H-280).