

L-type Ca⁺⁺ CP α 1C/D/F/S (D-19): sc-103588

BACKGROUND

L-type (long lasting current) voltage-dependent calcium channels are composed of four subunits, designated α 1, β , γ and α 2/ δ , all of which work together to mediate neurotransmitter release. The α subunit contains a tetrameric association of four domains each containing a series of six transmembrane α -helical segments, numbered S1-S6, which are connected by both intracellular and extracellular loops. The α subunit is comprised of an ion-conducting pore, which determines the main characteristics of the cation channel complex, including ion selectivity, voltage sensitivity and pharmacology, and binding characteristics for endogenous and exogenous ligands. There are ten genes in the human genome that encode pore-forming α 1 subunits of voltage-gated calcium channels. In combination with accessory subunits, these ten α 1 subunits, which include L-type Ca⁺⁺ CP α 1C, D, F and S, must mediate diverse functions such as intracellular calcium homeostasis, regulation of gene expression and coupling of membrane potential changes to various downstream processes like neurotransmitter release or muscle contraction.

SOURCE

L-type Ca⁺⁺ CP α 1C/D/F/S (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of L-type Ca⁺⁺ CP α 1D of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103588 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

L-type Ca⁺⁺ CP α 1C/D/F/S (D-19) is recommended for detection of L-type Ca⁺⁺ CP α 1S/1C/1D/1F of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

L-type Ca⁺⁺ CP α 1C/D/F/S (D-19) is also recommended for detection of L-type Ca⁺⁺ CP α 1S/1C/1D/1F in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of L-type Ca⁺⁺ CP α 1C/D/F/S short form: 199 kDa.

Molecular Weight of L-type Ca⁺⁺ CP α 1C long form: 240 kDa.

Molecular Weight of L-type Ca⁺⁺ CP α 1D: 245 kDa.

Molecular Weight of L-type Ca⁺⁺ CP α 1F: 221 kDa.

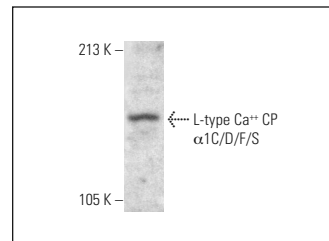
Molecular Weight of L-type Ca⁺⁺ CP α 1S: 212 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



L-type Ca⁺⁺ CP α 1C/D/F/S (D-19): sc-103588. Western blot analysis of L-type Ca⁺⁺ CP α 1C/D/F/S expression in IMR-32 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
Satisfaction
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Try **L-type Ca⁺⁺ CP α 1C (D-6): sc-398433** or **L-type Ca⁺⁺ CP α 1D (G-9): sc-515643**, our highly recommended monoclonal alternatives to L-type Ca⁺⁺ CP α 1C/D/F/S (D-19).