

L-type Ca⁺⁺ CP β 1 (h): 293T Lysate: sc-176607

BACKGROUND

Voltage-dependent Ca²⁺ channels mediate Ca²⁺ entry into excitable cells in response to membrane depolarization, and they are involved in a variety of Ca²⁺-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. Ca²⁺ 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.

REFERENCES

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2. Randall, A.D. 1998. The molecular basis of voltage-gated Ca²⁺ channel diversity: is it time for T? *J. Membr. Biol.* 161: 207-213.
3. Catterall, W.A. 2000. Structure and regulation of voltage-gated Ca²⁺ channels. *Annu. Rev. Cell Dev. Biol.* 16: 521-555.
4. Davare, M.A., Avdonin, V., Hall, D.D., Peden, E.M., Burette, A., Weinberg, R.J., Horne, M.C., Hoshi, T. and Hell, J.W. 2001. A β_2 adrenergic receptor signaling complex assembled with the Ca²⁺ channel Ca_v1.2. *Science* 293: 98-101.
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CHROMOSOMAL LOCATION

Genetic locus: CACNB1 (human) mapping to 17q12.

PRODUCT

L-type Ca⁺⁺ CP β 1 (h): 293T Lysate represents a lysate of human L-type Ca⁺⁺ CP β 1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

L-type Ca⁺⁺ CP β 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive L-type Ca⁺⁺ CP β 1 antibodies. Recommended use: 10-20 μ l per lane.

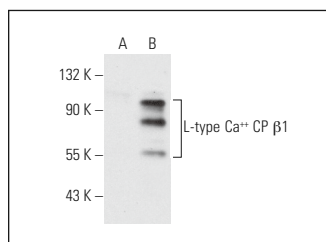
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

L-type Ca⁺⁺ CP β 1 (Y-2D68): sc-134377 is recommended as a positive control antibody for Western Blot analysis of enhanced human L-type Ca⁺⁺ CP β 1 expression in L-type Ca⁺⁺ CP β 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



L-type Ca⁺⁺ CP β 1 (Y-2D68): sc-134377. Western blot analysis of L-type Ca⁺⁺ CP β 1 expression in non-transfected: sc-117752 (A) and human L-type Ca⁺⁺ CP β 1 transfected: sc-176607 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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