

# L-type Ca<sup>++</sup> CP $\gamma$ 4 (K-13): sc-107677

## BACKGROUND

L-type (long lasting current) voltage-dependent calcium channels are composed of 4 subunits, designated  $\alpha$ 1,  $\beta$ ,  $\gamma$  and  $\alpha$ 2 $\delta$ , all of which work together to mediate neurotransmitter release. L-type Ca<sup>++</sup> CP  $\gamma$ 4, also known as CACNG4, is a 327 amino acid multi-pass membrane protein that exists as a component of the  $\gamma$  subunit and is thought to specifically stabilize calcium channels in a closed (inactive) state. The gene encoding L-type Ca<sup>++</sup> CP  $\gamma$ 4 maps to a cluster of  $\gamma$  subunit-encoding genes on human chromosome 17. Chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes, some of which are involved in tumor suppression and in the pathogenesis of Li-Fraumeni syndrome, early onset breast cancer and a predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CACNG4 (human) mapping to 17q24.2; *Cacng4* (mouse) mapping to 11 E1.

## SOURCE

L-type Ca<sup>++</sup> CP  $\gamma$ 4 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of L-type Ca<sup>++</sup> CP  $\gamma$ 4 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-107677 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

L-type Ca<sup>++</sup> CP  $\gamma$ 4 (K-13) is recommended for detection of L-type Ca<sup>++</sup> CP  $\gamma$ 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

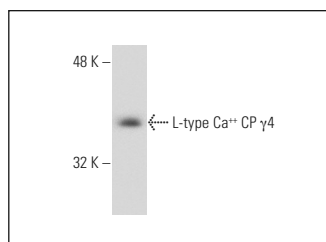
L-type Ca<sup>++</sup> CP  $\gamma$ 4 (K-13) is also recommended for detection of L-type Ca<sup>++</sup> CP  $\gamma$ 4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for L-type Ca<sup>++</sup> CP  $\gamma$ 4 siRNA (h): sc-94093, L-type Ca<sup>++</sup> CP  $\gamma$ 4 siRNA (m): sc-146618, L-type Ca<sup>++</sup> CP  $\gamma$ 4 shRNA Plasmid (h): sc-94093-SH, L-type Ca<sup>++</sup> CP  $\gamma$ 4 shRNA Plasmid (m): sc-146618-SH, L-type Ca<sup>++</sup> CP  $\gamma$ 4 shRNA (h) Lentiviral Particles: sc-94093-V and L-type Ca<sup>++</sup> CP  $\gamma$ 4 shRNA (m) Lentiviral Particles: sc-146618-V.

Molecular Weight of L-type Ca<sup>++</sup> CP  $\gamma$ 4: 37 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## DATA



L-type Ca<sup>++</sup> CP  $\gamma$ 4 (K-13): sc-107677. Western blot analysis of L-type Ca<sup>++</sup> CP  $\gamma$ 4 expression in Jurkat whole cell lysate.

## 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.