

hippocalcin (L-13): sc-51296

BACKGROUND

Hippocalcin is a neuron-specific calcium-binding protein found primarily in the plasma membrane of brain and retinal tissue, with increased expression observed in hippocampal pyramidal cells. Through its calcium-dependent signal regulation, hippocalcin can both inhibit rhodopsin kinase and increase phospholipase D2 expression. In order to regulate kinase and phospholipase activity, hippocalcin must bind to the plasma membrane, where it can then bind two calcium ions for use in signal regulation. The hippocalcin protein is highly conserved in mouse, rat and human tissue and has a suggested role in neural plasticity and associative memory by contributing to the survival of neurons during aging. The loss of hippocalcin expression is thought to contribute to age-related impairment of post-synaptic functions related to neuronal degradation.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: HPCA (human) mapping to 1p35.1, HPCAL1 (human) mapping to 12p25.1; HpcA (mouse) mapping to 4 D2.2, Hpcal1 (mouse) mapping to 12 A1.1.

SOURCE

hippocalcin (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of hippocalcin 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.

Blocking peptide available for competition studies, sc-51296 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hippocalcin (L-13) is recommended for detection of hippocalcin and, to a lesser extent, hippocalcin-like 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of hippocalcin: 22 kDa.

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) 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.

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.


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Try **hippocalcin (G-8): sc-393125**, our highly recommended monoclonal alternative to hippocalcin (L-13).