

hippocalcin (Z-21): sc-130777

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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- Oh, D.Y., et al. 2006. Hippocalcin in-creases phospholipase D2 expression through extracellular signal-regulated kinase activation and lysophosphatidic acid potentiates the hippocalcin-induced phospholipase D2 expression. *J. Cell. Biochem.* 97: 1052-1065.

CHROMOSOMAL LOCATION

Genetic locus: HPCA (human) mapping to 1p35.1; Hpca (mouse) mapping to 4 D2.2.

SOURCE

hippocalcin (Z-21) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of hippocalcin of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

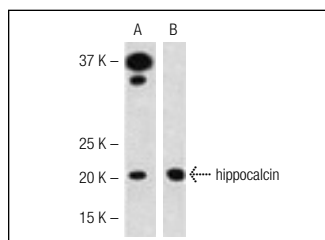
hippocalcin (Z-21) is recommended for detection of hippocalcin of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 hippocalcin siRNA (h): sc-72249, hippocalcin siRNA (m): sc-72250, hippocalcin shRNA Plasmid (h): sc-72249-SH, hippocalcin shRNA Plasmid (m): sc-72250-SH, hippocalcin shRNA (h) Lentiviral Particles: sc-72249-V and hippocalcin shRNA (m) Lentiviral Particles: sc-72250-V.

Molecular Weight of hippocalcin: 22 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or mouse brain extract: sc-2253.

DATA



hippocalcin (Z-21): sc-130777. Western blot analysis of hippocalcin expression in Y79 whole cell lysate (A) and mouse brain tissue extract (B).

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **hippocalcin (G-8): sc-393125**, our highly recommended monoclonal alternative to hippocalcin (Z-21).