SANTA CRUZ BIOTECHNOLOGY, INC.

# VILIP-1/2 (C-14): sc-14814

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*The Power to Question*

## BACKGROUND

The Visinin-like proteins, VILIP-1, VILIP-2 and VILIP-3, belong to a family of neuronal $Ca^{2+}$ sensor (NCS) proteins conserved from yeast to human. The NCS family is divided into five subfamilies, consisting of about 40 family members in total. Group III represents the VILIP family and includes hippocalcin and neurocalcin-d, along with VILIP-1–3. Visinin-like protein-2 (VILIP-2), also designated hippocalcin like-4 (HPCAL4), is a CaM-related $Ca^{2+}$-binding protein expressed in the neocortex and hippocampus. VILIP-2 is highly similar to human hippocalcin protein and hippocalcin like-1 protein as well as rat neural visinin-like $Ca^{2+}$-binding protein-type 1 and 2 proteins. VILIP-2 may be involved in the $Ca^{2+}$-dependent regulation of rhodopsin phosphorylation and may bind to two or three $Ca^{2+}$ ions. The VILIP-2 protein contains four EF-hand domains. The gene which encodes for the VILIP-2 protein, HPCAL4, maps to chromosome 1p34.2 and the transcript of this gene has multiple polyadenylation sites.

## REFERENCES


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3. Lenz, S.E., Braunewell, K.H., Weise, C., Nedlina-Chittka, A. and Gundelfinger, E.D. 1996. The neuronal EF-hand $Ca^{2+}$-binding protein VILIP: interaction with cell membrane and Actin-based cytoskeleton. Biochem. Biophys. Res. Commun. 22: 1078-1083
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## CHROMOSOMAL LOCATION

Genetic locus: HPCAL4 (human) mapping to 1p34.2, VSNL1 (human) mapping to 2p24.2; Hpcal4 (mouse) mapping to 4 D2.2, Vsnl1 (mouse) mapping to 12 A1.1.

## RESEARCH USE

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

## SOURCE

VILIP-1/2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of VILIP-1 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-14814 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

VILIP-1/2 (C-14) is recommended for detection of VILIP-1 and VILIP-2 of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of VILIP-1/2: 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) 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.

## STORAGE

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

## PROTOCOLS

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