

VILIP-2 (11B10): sc-135603

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 5 subfamilies, consisting of about 40 family members in total. Group III represents the VILIP family and includes hippocalcin and neurocalcine- δ , 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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2. Wiemann, S., Weil, B., Wellenreuther, R., Gassenhuber, J., Glassl, S., Ansorge, W., Böcher, M., Blöcker, H., Bauersachs, S., Blum, H., Lauber, J., Düsterhöft, A., Beyer, A., Köhrer, K., Strack, N., Mewes, HW., et al. 2001. Toward a catalog of human genes and proteins: sequencing and analysis of 500 novel complete protein coding human cDNAs. *Genome Res.* 11: 422-435.
3. Lautermilch, N.J., Few, A.P., Scheuer, T. and Catterall, W.A. 2005. Modulation of $Ca_v2.1$ channels by the neuronal calcium-binding protein visinin-like protein-2. *J. Neurosci.* 25: 7062-7070.
4. Few, A.P., Lautermilch, N.J., Westenbroek, R.E., Scheuer, T. and Catterall, W.A. 2005. Differential regulation of $Ca_v2.1$ channels by calcium-binding protein 1 and visinin-like protein-2 requires N-terminal myristoylation. *J. Neurosci.* 25: 7071-7080.

CHROMOSOMAL LOCATION

Genetic locus: HPCAL4 (human) mapping to 1p34.2; Hpcal4 (mouse) mapping to 4 D2.2.

SOURCE

VILIP-2 (11B10) is a mouse monoclonal antibody raised against recombinant VILIP-2 protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

VILIP-2 (11B10) is recommended for detection of VILIP-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VILIP-2 siRNA (h): sc-61790, VILIP-2 siRNA (m): sc-61791, VILIP-2 shRNA Plasmid (h): sc-61790-SH, VILIP-2 shRNA Plasmid (m): sc-61791-SH, VILIP-2 shRNA (h) Lentiviral Particles: sc-61790-V and VILIP-2 shRNA (m) Lentiviral Particles: sc-61791-V.

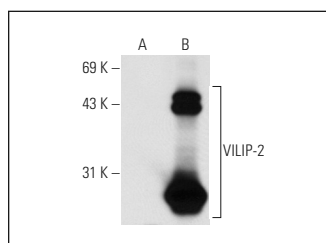
Molecular Weight of VILIP-2: 22 kDa.

Positive Controls: VILIP-2 (h4): 293T Lysate: sc-176556.

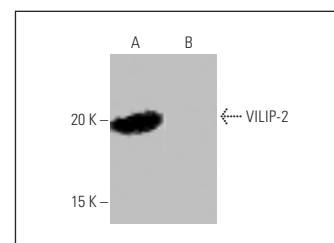
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



VILIP-2 (11B10): sc-135603. Western blot analysis of VILIP-2 expression in non-transfected: sc-117752 (A) and human VILIP-2 transfected: sc-176556 (B) 293T whole cell lysates.



VILIP-2 (11B10): sc-135603. Western blot analysis of VILIP-2 expression in human VILIP-2 transfected (A) and non-transfected (B) 293T whole cell lysates.

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.