

VILIP-2 (h3): 293T Lysate: sc-176448

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 neuro-calcin- 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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3. Lautermilch, N.J., Few, A.P., Scheuer, T. and Catterall, W.A. 2005. Modulation of $\text{CaV}2.1$ 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 $\text{CaV}2.1$ 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.

PRODUCT

VILIP-2 (h3): 293T Lysate represents a lysate of human VILIP-2 transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

VILIP-2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive VILIP-2 antibodies. Recommended use: 10-20 μl per lane.

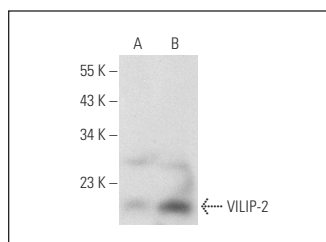
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

VILIP-2 (11B10): sc-135603 is recommended as a positive control antibody for Western Blot analysis of enhanced human VILIP-2 expression in VILIP-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

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-176448 (B) 293T whole cell lysates.

STORAGE

Store at -20°C . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.