

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

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 neurocalcin- 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

1. Kobayashi, M., et al. 1999. Isolation of two human cDNAs, HLP3 and HLP4, homologous to the neuron-specific calcium-binding protein genes. *DNA Seq.* 9: 171-176.
2. Wiemann, S., 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., et al. 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., et al. 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 (h4): 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.

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.

APPLICATIONS

VILIP-2 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive VILIP-2 antibodies. Recommended use: 10-20 μl per lane.

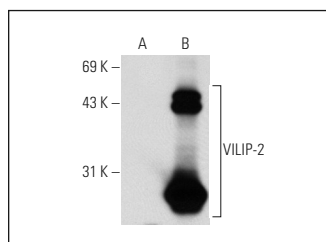
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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-176556 (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.