

HIP12 (h): 293T Lysate: sc-115513

BACKGROUND

Huntington disease is associated with the expansion of a polyglutamine tract, greater than 35 repeats in the HD gene product, Huntingtin. HIP1 (Huntingtin interacting protein 1), a membrane-associated protein, binds specifically to the N-terminus of human Huntingtin. HIP1 is ubiquitously expressed in different brain regions at low levels and exhibits nearly identical subcellular fractionation as Huntingtin. The Huntingtin-HIP1 interaction is restricted to the brain and is inversely correlated to the polyglutamine length in the Huntingtin, suggesting that loss of normal Huntingtin-HIP1 interaction may compromise the membrane-cytoskeletal integrity in the brain. HIP1 contains an endocytic multi-domain protein with a C-terminal Actin-binding domain, a central coiled-coil forming region and an N-terminal ENTH domain, and may be involved in vesicle trafficking. HIP12 is a non-proapoptotic member of the HIP gene family that is expressed in the brain and shares a similar subcellular distribution pattern with HIP1. However, HIP12 differs from HIP1 in its pattern of expression at both the mRNA and protein level. HIP12 does not directly interact with Huntingtin but can interact with HIP1.

REFERENCES

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2. Wanker, E.E., et al. 1997. HIP1: a Huntingtin interacting protein isolated by the yeast two-hybrid system. *Hum. Mol. Genet.* 6: 487-495.
3. Wedemeyer, N., et al. 1997. Localization of the human HIP1 gene close to the elastin (ELN) locus on 7q11.23. *Genomics* 46: 313-315.
4. Himmelbauer, H., et al. 1998. IRS-PCR-based genetic mapping of the Huntingtin interacting protein gene (HIP1) on mouse chromosome 5. *Mamm. Genome* 9: 26-31.
5. Chopra, V.S., et al. 2000. HIP12 is a non-proapoptotic member of a gene family including HIP1, an interacting protein with Huntingtin. *Mamm. Genome* 11: 1006-1015.
6. Waelter, S., et al. 2001. The Huntingtin interacting protein HIP1 is a clathrin and α -adaptin-binding protein involved in receptor-mediated endocytosis. *Hum. Mol. Genet.* 10: 1807-1817.
7. Legendre-Guillemin, V., et al. 2002. HIP1 and HIP12 display differential binding to F-Actin, AP2, and clathrin. Identification of a novel interaction with clathrin light chain. *J. Biol. Chem.* 277: 19897-19904.
8. Legendre-Guillemin, V., et al. 2005. Huntingtin interacting protein 1 (HIP1) regulates clathrin assembly through direct binding to the regulatory region of the clathrin light chain. *J. Biol. Chem.* 280: 6101-6108.

CHROMOSOMAL LOCATION

Genetic locus: HIP1R (human) mapping to 12q24.31.

PRODUCT

HIP12 (h): 293T Lysate represents a lysate of human HIP12 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HIP12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HIP12 antibodies. Recommended use: 10-20 μ l per lane.

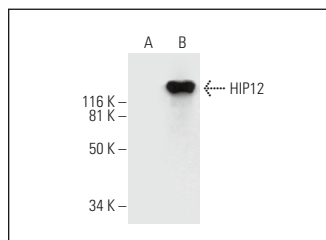
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HIP12 (D-6): sc-390803 is recommended as a positive control antibody for Western Blot analysis of enhanced human HIP12 expression in HIP12 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

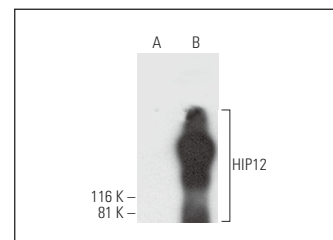
RECOMMENDED SUPPORT REAGENTS

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



HIP12 (D-6): sc-390803. Western blot analysis of HIP12 expression in non-transfected: sc-117752 (A) and human HIP12 transfected: sc-115513 (B) 293T whole cell lysates.



HIP12 (1C5): sc-58533. Western blot analysis of HIP12 expression in non-transfected: sc-117752 (A) and human HIP12 transfected: sc-115513 (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.