

HIP12 (1C5): sc-58533

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

1. Kalchman, M.A., et al. 1997. HIP1, a human homologue of *S. cerevisiae* Sla2p, interacts with membrane-associated Huntingtin in the brain. *Nat. Genet.* 16: 44-53.
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.

CHROMOSOMAL LOCATION

Genetic locus: HIP1R (human) mapping to 12q24.31; Hip1r (mouse) mapping to 5 F.

SOURCE

HIP12 (1C5) is a mouse monoclonal antibody raised against a recombinant fragment of HIP12 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIP12 (1C5) is available conjugated to agarose (sc-58533 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58533 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58533 PE), fluorescein (sc-58533 FITC), Alexa Fluor® 488 (sc-58533 AF488), Alexa Fluor® 546 (sc-58533 AF546), Alexa Fluor® 594 (sc-58533 AF594) or Alexa Fluor® 647 (sc-58533 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58533 AF680) or Alexa Fluor® 790 (sc-58533 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HIP12 (1C5) is recommended for detection of HIP12 of human origin, Hip1r of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for HIP12 siRNA (h): sc-105453, Hip1r siRNA (m): sc-145969, HIP12 shRNA Plasmid (h): sc-105453-SH, Hip1r shRNA Plasmid (m): sc-145969-SH, HIP12 shRNA (h) Lentiviral Particles: sc-105453-V and Hip1r shRNA (m) Lentiviral Particles: sc-145969-V.

Molecular Weight of HIP12: 119 kDa.

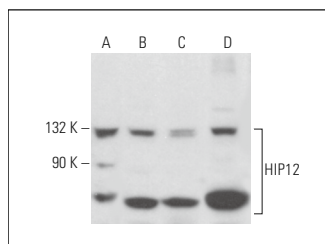
Positive Controls: HIP12 (h): 293T Lysate: sc-115513, AT3B-1 whole cell lysate: sc-364372 or F9 cell lysate: sc-2245.

RECOMMENDED SUPPORT REAGENTS

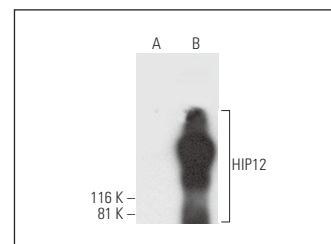
To ensure optimal results, the following support reagents are recommended:

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



HIP12 (1C5): sc-58533. Western blot analysis of HIP12 expression in AT3B-1 (A), F9 (B), NIH/3T3 (C) and PC-3 (D) 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.

RESEARCH USE

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