

# HIP1 (4B10): sc-47754



The Power to Question

## 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 HIP1 gene locates to the human chromosome 7q11.23. 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 multidomain protein with an N-terminal ENTH domain, a central coiled-coil forming region and a C-terminal Actin-binding domain. HIP1 may be involved in vesicle trafficking, and the structural integrity of HIP1 is crucial for maintenance of normal vesicle size *in vivo*. 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

- Wanker, E.E., et al. 1997. HIP1: a Huntingtin interacting protein isolated by the yeast two-hybrid system. *Hum. Mol. Genet.* 6: 487-495.
- Wedemeyer, N., et al. 1997. Localization of the human HIP1 gene close to the elastin (ELN) locus on 7q11.23. *Genomics* 46: 313-315.
- 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.

## CHROMOSOMAL LOCATION

Genetic locus: HIP1 (human) mapping to 7q11.23; Hip1 (mouse) mapping to 5 G2.

## SOURCE

HIP1 (4B10) is a mouse monoclonal antibody raised against a recombinant 3' fragment of HIP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIP1 (4B10) is available conjugated to agarose (sc-47754 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47754 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-47754 PE), fluorescein (sc-47754 FITC), Alexa Fluor® 488 (sc-47754 AF488), Alexa Fluor® 546 (sc-47754 AF546), Alexa Fluor® 594 (sc-47754 AF594) or Alexa Fluor® 647 (sc-47754 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47754 AF680) or Alexa Fluor® 790 (sc-47754 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

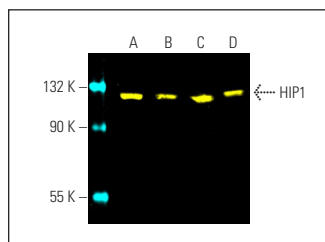
HIP1 (4B10) is recommended for detection of HIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for HIP1 siRNA (h): sc-41982, HIP1 siRNA (m): sc-41983, HIP1 shRNA Plasmid (h): sc-41982-SH, HIP1 shRNA Plasmid (m): sc-41983-SH, HIP1 shRNA (h) Lentiviral Particles: sc-41982-V and HIP1 shRNA (m) Lentiviral Particles: sc-41983-V.

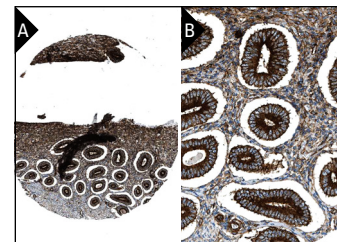
Molecular Weight of HIP1: 116 kDa.

Positive Controls: A549 cell lysate: sc-2413, NTERA-2 cl.D1 whole cell lysate: sc-364181 or MCF7 whole cell lysate: sc-2206.

## DATA



HIP1 (4B10) Alexa Fluor® 488: sc-47754 AF488. Direct fluorescent western blot analysis of HIP1 expression in A549 (A), MCF7 (B), NTERA-2 cl.D1 (C) and U-87 MG (D) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.



HIP1 (4B10): sc-47754. Immunoperoxidase staining of formalin fixed, paraffin-embedded human corpus, uterine tissue showing cytoplasmic staining of cells in endometrial stroma and glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Hsu, C.Y., et al. 2016. Huntingtin-interacting protein-1 is an early-stage prognostic biomarker of lung adenocarcinoma and suppresses metastasis via Akt-mediated epithelial-mesenchymal transition. *Am. J. Respir. Crit. Care Med.* 193: 869-880.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. 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](http://www.scbt.com) for detailed protocols and support products.