SANTA CRUZ BIOTECHNOLOGY, INC.

HIP12 (CA.36): sc-130427

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 multidomain 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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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.

SOURCE

HIP12 (CA.36) is a mouse monoclonal antibody raised against recombinant HIP12 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HIP12 (CA.36) is recommended for detection of HIP12 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

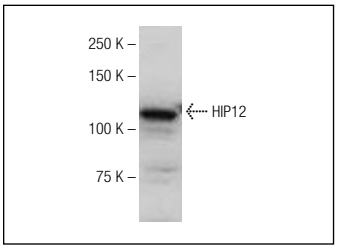
Molecular Weight of HIP12: 119 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 (CA.36): sc-130427. Western blot analysis of HIP12 expression in A-431 whole cell lysate.

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 for detailed protocols and support products.