

HAP1 (A-11): sc-398581

BACKGROUND

HAP1 (Huntingtin-associated protein 1) binds to Huntingtin. Huntingtin is a protein that contains a polyglutamine region and when the number of glutamine repeats exceeds 35, the gene encodes a version of Huntingtin that leads to Huntington's disease (HD). The ability of HAP1 to bind to Huntingtin is enhanced by an expanded polyglutamine repeat region. HAP1 shows neuronal localization and moves with Huntingtin in nerve fibers. HAP1 is primarily expressed in brain tissue, with greater expression in the olfactory bulb and brain stem. HAP1 in rat has been shown to associate with a number of intracellular organelles. Mouse HAP1 is localized to membrane-bound organelles including large endosomes, tubulovesicular structures and budding vesicles in neurons.

REFERENCES

1. Group THDCR. 1993. A novel gene containing a trinucleotide repeat that is expanded and unstable on Huntington's disease chromosomes. *Cell* 72: 971-983.
2. Li, X.J., et al. 1995. A Huntingtin-associated protein enriched in brain with implications for pathology. *Nature* 378: 398-402.
3. Gusella, J.F., et al. 1996. Huntington's disease. *Cold Spring Harb. Symp. Quant. Biol.* 61: 615-626.
4. Li, X.J., et al. 1996. Huntingtin-associated protein (HAP1): discrete neuronal localization in the brain resemble those of neuronal nitric oxide synthase. *Proc. Natl. Acad. Sci. USA* 93: 4839-4844.
5. Block-Galarza, J., et al. 1997. Fast transport and retrograde movement of Huntingtin and HAP 1 in axons. *Neuroreport* 8: 2247-2251.
6. Gutekunst, C.A., et al. 1999. Nuclear and neuropil aggregates in Huntington's disease: relationship to neuropathology. *J. Neurosci.* 19: 2522-2534.
7. Martin, E.J., et al. 1999. Analysis of Huntingtin associated protein 1 in mouse brain and immortalized striatal neurons. *J. Comp. Neurol.* 403: 421-430.

CHROMOSOMAL LOCATION

Genetic locus: HAP1 (human) mapping to 17q21.2.

SOURCE

HAP1 (A-11) is a mouse monoclonal antibody raised against amino acids 478-671 mapping at the C-terminus of HAP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

HAP1 (A-11) is recommended for detection of HAP1 of human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HAP1 siRNA (h): sc-94188, HAP1 shRNA Plasmid (h): sc-94188-SH and HAP1 shRNA (h) Lentiviral Particles: sc-94188-V.

Molecular Weight of HAP1A: 75 kDa.

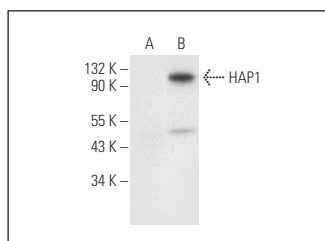
Molecular Weight of HAP1B: 85 kDa.

Positive Controls: HAP1 (h): 293 Lysate: sc-172261.

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, 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HAP1 (A-11): sc-398581. Western blot analysis of HAP1 expression in non-transfected: sc-110760 (A) and human HAP1 transfected: sc-172261 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lee, J., et al. 2019. HAP1 loss confers L-asparaginase resistance in ALL by downregulating the Calpain-1-Bid-caspase-3/12 pathway. *Blood* 133: 2222-2232.

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.