SANTA CRUZ BIOTECHNOLOGY, INC.

HAP1 (M-300): sc-30126

BACKGROUND

HAP1 (huntingtin-associated protein 1) binds to huntingtin. Huntingtin is a 350 kDa 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.

SOURCE

HAP1 (M-300) is a rabbit polyclonal antibody raised against amino acids 329-628 mapping at the C-terminus of HAP1B of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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.

RESEARCH USE

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

APPLICATIONS

HAP1 (M-300) is recommended for detection of HAP1 of mouse origin and HAP1A and HAP1B of rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HAP1 siRNA (m): sc-63300, HAP1 shRNA Plasmid (m): sc-63300-SH and HAP1 shRNA (m) Lentiviral Particles: sc-63300-V.

Molecular Weight of HAP1: 95/110 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Yang, M., et al. 2011. Precursor of brain-derived neurotrophic factor (proBDNF) forms a complex with huntingtin associated protein-1 (HAP1) and sortilin that modulates proBDNF trafficking, degradation and processing. J. Biol. Chem. 286: 16272-16284.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.