

HAP40 (N-18): sc-69488

BACKGROUND

The Huntingtin protein contains a polyglutamine region, which leads to Huntington's disease (HD) when the number of glutamine repeats exceeds thirty-five. The mutated Huntingtin protein acts within the nucleus to induce neurodegeneration by a cell-specific apoptotic mechanism. The loss of activity of the Huntingtin protein may be contributed to abnormal interactions between the mutant protein and other associated cellular proteins. Huntingtin interacts with a variety of proteins including HAP1, glyceraldehyde phosphate dehydrogenase (GAPDH), HAP40, Rab5 and HIP1. HAP40 mediates the recruitment of Huntingtin by Rab5 onto early endosomes. Specifically, this complex regulates endosome motility, which may be a key event of the pathogenetic process leading to neurodegeneration in HD.

REFERENCES

1. Ambrose, C.M., et al. 1994. Structure and expression of the Huntington's disease gene: evidence against simple inactivation due to an expanded CAG repeat. *Somat. Cell Mol. Genet.* 20: 27-38.
2. Albin, R.L. and Tagle, D.A. 1995. Genetics and molecular biology of Huntington's disease. *Trends Neurosci.* 18: 11-14.
3. Gusella, J.F., et al. 1996. Huntington's disease. *Cold Spring Harb. Symp. Quant. Biol.* 61: 615-626.
4. Saudou, F., et al. 1998. Huntingtin acts in the nucleus to induce apoptosis but death does not correlate with the formation of intranuclear inclusions. *Cell* 95: 55-65.
5. Peters, M.F. and Ross, C.A. 2001. Isolation of a 40 kDa Huntingtin-associated protein. *J. Biol. Chem.* 276: 3188-3194.
6. Pal, A., et al. 2006. Huntingtin-HAP40 complex is a novel Rab5 effector that regulates early endosome motility and is up-regulated in Huntington's disease. *J. Cell Biol.* 172: 605-618.

CHROMOSOMAL LOCATION

Genetic locus: F8A1 (human) mapping to Xq28; F8a (mouse) mapping to X A7.3.

SOURCE

HAP40 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HAP40 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HAP40 (N-18) is recommended for detection of HAP40 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HAP40 siRNA (h): sc-75225, HAP40 siRNA (m): sc-75226, HAP40 shRNA Plasmid (h): sc-75225-SH, HAP40 shRNA Plasmid (m): sc-75226-SH, HAP40 shRNA (h) Lentiviral Particles: sc-75225-V and HAP40 shRNA (m) Lentiviral Particles: sc-75226-V.

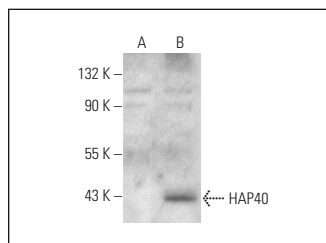
Molecular Weight of HAP40: 40 kDa.

Positive Controls: HAP40 (h): 293T Lysate: sc-174959.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HAP40 (N-18): sc-69488. Western blot analysis of HAP40 expression in non-transfected: sc-117752 (A) and human HAP40 transfected: sc-174959 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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