SANTA CRUZ BIOTECHNOLOGY, INC.

Huntingtin (N-18): sc-8767

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Huntingtin is a protein that contains a polyglutamine region. When the number of glutamine repeats exceeds 35, the gene encodes a version of Huntingtin that leads to Huntington's disease (HD). When the polyglutamine stretch is mutated, Huntingtin acts within the nucleus to induce neurodegeneration by a cell-specific apoptotic mechanism. Loss of Huntingtin activity is unlikely to be the cause of HD, and it has been proposed that the expanded glutamine repeat region may induce an abnormal interaction between the mutant protein and other cellular proteins. Huntingtin interacts with a variety of proteins including HAP1, glyceraldehyde phosphate dehydrogenase (GAPDH) and HIP1.

CHROMOSOMAL LOCATION

Genetic locus: HTT (human) mapping to 4p16.3; Htt (mouse) mapping to 5 B2.

SOURCE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8767 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Huntingtin (N-18) is recommended for detection of Huntingtin 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).

Huntingtin (N-18) is also recommended for detection of Huntingtin in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Huntingtin siRNA (h): sc-35617, Huntingtin siRNA (m): sc-35618, Huntingtin siRNA (r): sc-270267, Huntingtin shRNA Plasmid (h): sc-35617-SH, Huntingtin shRNA Plasmid (m): sc-35618-SH, Huntingtin shRNA Plasmid (r): sc-270267-SH, Huntingtin shRNA (h) Lentiviral Particles: sc-35617-V, Huntingtin shRNA (m) Lentiviral Particles: sc-35618-V and Huntingtin shRNA (r) Lentiviral Particles: sc-270267-V.

Molecular Weight of Huntingtin: 350 kDa.

Positive Controls: mouse brain extract: sc-2253, Jurkat whole cell lysate: sc-2204 or rat brain extract: sc-2392.

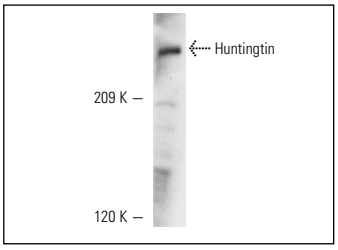
RESEARCH USE

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

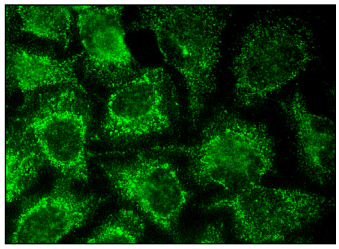
STORAGE

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

DATA



Huntingtin (N-18): sc-8767. Western blot analysis of Huntingtin expression in mouse brain extract.



Huntingtin (N-18): sc-8767. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Mitsui, K., et al. 2002. Purification of polyglutamine aggregates and identification of elongation factor-1α and heat shock protein 84 as aggregate-interacting proteins. J. Neurosci. 22: 9267-9277.
2. Tallaksen-Greene, S.J., et al. 2005. Neuronal intranuclear inclusions and neuropil aggregates in HdhCAG(150) knockin mice. Neuroscience 131: 843-852.
3. Feng, Z., et al. 2006. p53 tumor suppressor protein regulates the levels of Huntingtin gene expression. Oncogene 25: 1-7.
4. Wang, H., et al. 2009. Effects of overexpression of Huntingtin proteins on mitochondrial integrity. Hum. Mol. Genet. 18: 737-752.
5. Mallik, M. and Lakhotia, S.C. 2010. Improved activities of CREB binding protein, heterogeneous nuclear ribonucleoproteins and proteasome following downregulation of noncoding hsrω transcripts help suppress polyQ pathogenesis in fly models. Genetics 184: 927-945.
6. Hayashida, N., et al. 2010. Heat shock factor 1 ameliorates proteotoxicity in cooperation with the transcription factor NFAT. EMBO J. 29: 3459-3469.
7. Shinkawa, T., et al. 2011. Heat shock factor 2 is required for maintaining proteostasis against febrile-range thermal stress and polyglutamine aggregation. Mol. Biol. Cell 22: 3571-3583.
8. Rozas, J.L., et al. 2011. Increased neurotransmitter release at the neuromuscular junction in a mouse model of polyglutamine disease. J. Neurosci. 31: 1106-1113.