

HIP2 (m): 293T Lysate: sc-120787

BACKGROUND

HIP1 (Huntingtin-interacting protein 1), a membrane-associated protein, and HIP2 bind specifically to the N-terminus of human Huntingtin. HIP1 and HIP2 are ubiquitously expressed in different brain regions at low levels and exhibit nearly identical subcellular fractionation as Huntingtin. The Huntingtin-HIP1 interaction is inversely correlated to the polyglutamine length in Huntingtin, suggesting that loss of normal Huntingtin-HIP1 interaction may compromise the membrane-cytoskeletal integrity in the brain. Conversely, the Huntingtin-HIP2 interaction is not affected by the polyglutamine length in the Huntingtin protein. However, both HIP1 and HIP2 play an important role in the pathogenesis of Huntington disease (HD).

REFERENCES

1. Sun, H., et al. 1992. Effects of McAbs HIP2, APT4 and HI117 on the human platelet cytoskeleton. *Zhongguo Yi Xue Ke Xue Yuan Xue Bao* 14: 1-5.
2. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. *J. Biol. Chem.* 271: 19385-19394.
3. Tanno, Y., et al. 1999. Localization of Huntingtin-interacting protein-2 (HIP2) mRNA in the developing mouse brain. *J. Chem. Neuroanat.* 17: 99-107.
4. Wang, Y., et al. 2000. YAC/BAC-based physical and transcript mapping around the gracile axonal dystrophy (gad) locus identifies Uchl1, Pmx2b, Atp3a2, and HIP2 genes. *Genomics* 66: 333-336.
5. Lee, S.J., et al. 2001. E3 ligase activity of RING finger proteins that interact with HIP2, a human ubiquitin-conjugating enzyme. *FEBS Lett.* 503: 61-64.
6. Song, S., et al. 2003. Essential role of E2-25K/HIP2 in mediating amyloid- β neurotoxicity. *Mol. Cell* 12: 553-563.
7. Wesierska-Gadek, J., et al. 2007. Roscovitine-activated HIP2 kinase induces phosphorylation of wt p53 at Ser 46 in human MCF-7 breast cancer cells. *J. Cell. Biochem.* 100: 865-874.
8. Metzler, M., et al. 2007. NMDA receptor function and NMDA receptor-dependent phosphorylation of Huntingtin is altered by the endocytic protein HIP1. *J. Neurosci.* 27: 2298-2308.
9. Ybe, J.A. et al., 2007. Crystal structure at 2.8 Å of the DLLRKN-containing coiled-coil domain of huntingtin-interacting protein 1 (HIP1) reveals a surface suitable for clathrin light chain binding. *J. Mol. Biol.* 367: 8-15.

CHROMOSOMAL LOCATION

Genetic locus: Ube2k (mouse) mapping to 5 C3.1.

PRODUCT

HIP2 (m): 293T Lysate represents a lysate of mouse HIP2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

HIP2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HIP2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.