SANTA CRUZ BIOTECHNOLOGY, INC.

HYPE (3F5): sc-517074

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Huntingtin yeast partner E (HYPE), also known as FIC domain-containing protein (FICD) and Huntingtin-interacting protein 13, is a 458 amino acid single-pass membrane protein. HYPE is thought to interact with Huntingtin, a protein which induces neurodegeneration when mutated. HYPE also contains two tetratricopeptide repeats (TPR), which may be involved in protein-protein interaction. The gene that encodes HYPE is located on chromosome 12, which encodes over 1,100 genes within 132 million bases and makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12 including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms varying in severity depending on the extent of mosaicism and is most severe in cases of complete trisomy.

REFERENCES

1. Allen, T.L., et al. 1996. Cytogenetic and molecular analysis in trisomy 12p. Am. J. Med. Genet. 63: 250-256.
2. Faber, P.W., et al. 1998. Huntingtin interacts with a family of WW domain proteins. Hum. Mol. Genet. 7: 1463-1474.
3. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
4. Nishimura, G., et al. 2005. The phenotypic spectrum of COL2A1 mutations. Hum. Mutat. 26: 36-43.
5. Segel, R., et al. 2006. The natural history of trisomy 12p. Am. J. Med. Genet. A 140A: 695-703.
6. van der Burgt, I. 2007. Noonan syndrome. Orphanet J. Rare Dis. 2: 4.

CHROMOSOMAL LOCATION

Genetic locus: FICD (human) mapping to 12q23.3.

SOURCE

HYPE (3F5) is a mouse monoclonal antibody raised against amino acids 1-449 representing full length HYPE of human origin.

PRODUCT

Each vial contains 100 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.

PROTOCOLS

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

APPLICATIONS

HYPE (3F5) is recommended for detection of HYPE of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HYPE siRNA (h): sc-95752, HYPE shRNA Plasmid (h): sc-95752-SH and HYPE shRNA (h) Lentiviral Particles: sc-95752-V.

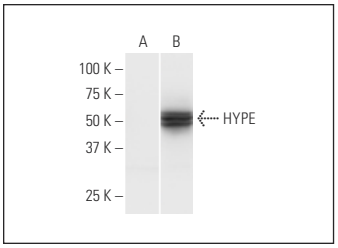
Molecular Weight of HYPE: 52 kDa.

Positive Controls: HYPE transfected 293T whole cell lysate.

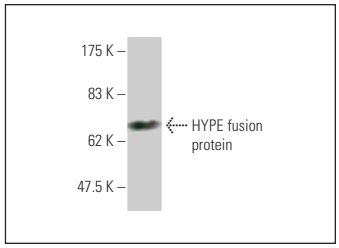
RECOMMENDED SUPPORT REAGENTS

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, 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).

DATA



HYPE (3F5): sc-517074. Western blot analysis of HYPE expression in non-transfected (**A**) and HYPE transfected (**B**) 293T whole cell lysates.



HYPE (3F5): sc-517074. Western blot analysis of human recombinant HYPE fusion protein.

RESEARCH USE

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