

HYPE (G-7): sc-515368

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 that 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 class I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms that vary in severity, depending on the extent of mosaicism, and is most severe in cases of complete trisomy.

REFERENCES

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- Faber, P.W., Barnes, G.T., Srinidhi, J., Chen, J., Gusella, J.F. and MacDonald, M.E. 1998. Huntingtin interacts with a family of WW domain proteins. *Hum. Mol. Genet.* 7: 1463-1474.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. and Wilson, M.J. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
- Nishimura, G., Haga, N., Kitoh, H., Tanaka, Y., Sonoda, T., Kitamura, M., Shirahama, S., Itoh, T., Nakashima, E., Ohashi, H. and Ikegawa, S. 2005. The phenotypic spectrum of COL2A1 mutations. *Hum. Mutat.* 26: 36-43.

CHROMOSOMAL LOCATION

Genetic locus: FICD (human) mapping to 12q23.3; Ficd (mouse) mapping to 5 F.

SOURCE

HYPE (G-7) is a mouse monoclonal antibody raised against amino acids 159-458 mapping at the C-terminus of HYPE of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HYPE (G-7) is available conjugated to agarose (sc-515368 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515368 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515368 PE), fluorescein (sc-515368 FITC), Alexa Fluor® 488 (sc-515368 AF488), Alexa Fluor® 546 (sc-515368 AF546), Alexa Fluor® 594 (sc-515368 AF594) or Alexa Fluor® 647 (sc-515368 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515368 AF680) or Alexa Fluor® 790 (sc-515368 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HYPE (G-7) is recommended for detection of HYPE of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 HYPE siRNA (h): sc-95752, HYPE siRNA (m): sc-146121, HYPE shRNA Plasmid (h): sc-95752-SH, HYPE shRNA Plasmid (m): sc-146121-SH, HYPE shRNA (h) Lentiviral Particles: sc-95752-V and HYPE shRNA (m) Lentiviral Particles: sc-146121-V.

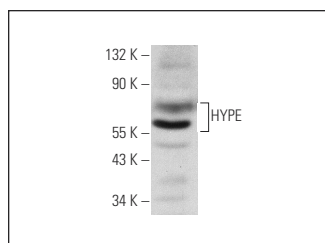
Molecular Weight of HYPE: 52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human liver extract: sc-363766.

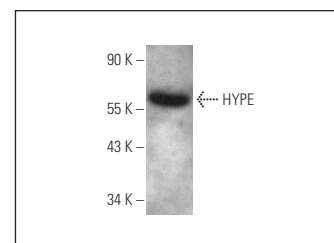
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HYPE (G-7): sc-515368. Western blot analysis of HYPE expression in Hep G2 whole cell lysate.



HYPE (G-7): sc-515368. Western blot analysis of HYPE expression in human liver tissue extract.

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.

PROTOCOLS

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

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