

HARBI1 (N-19): sc-242992

BACKGROUND

HARBI1 (harbinger transposase derived 1) is a 349 amino acid nuclear and cytoplasmic protein belonging to the HARBI1 family. Members of the HARBI1 family of proteins are highly conserved in humans to various bony fish. Considered a transposase-derived protein, HARBI1 may possess nuclease activity and is expressed in brain, eye, nerve tissue, kidney and lung. HARBI1 utilizes divalent metal cations as cofactors, interacts with NAIF1 and promotes translocation to the nucleus. HARBI1 is encoded by a gene located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Kapitonov, V.V. and Jurka, J. 2004. Harbinger transposons and an ancient HARBI1 gene derived from a transposase. *DNA Cell Biol.* 23: 311-324.
2. Grossfeld, P.D., Mattina, T., Lai, Z., Favier, R., Jones, K.L., Cotter, F. and Jones, C. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129: 51-61.
3. Kapitonov, V.V. and Jurka, J. 2005. RAG1 core and V(D)J recombination signal sequences were derived from Transib transposons. *PLoS Biol.* 3: e181.
4. Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., Fitzgerald, M.G., Jaffe, D.B., LaButti, K., Nicol, R., Park, H.S., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
5. Miskey, C., Papp, B., Mátés, L., Sinzelle, L., Keller, H., Izsvák, Z. and Ivics, Z. 2007. The ancient mariner sails again: transposition of the human Hsmar1 element by a reconstructed transposase and activities of the SETMAR protein on transposon ends. *Mol. Cell. Biol.* 27: 4589-4600.
6. Berger, A.C., Salazar, G., Styers, M.L., Newell-Litwa, K.A., Werner, E., Maue, R.A., Corbett, A.H. and Faundez, V. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.
7. Sinzelle, L., Kapitonov, V.V., Grzela, D.P., Jursch, T., Jurka, J., Izsvák, Z. and Ivics, Z. 2008. Transposition of a reconstructed Harbinger element in human cells and functional homology with two transposon-derived cellular genes. *Proc. Natl. Acad. Sci. USA* 105: 4715-4720.

CHROMOSOMAL LOCATION

Genetic locus: HARBI1 (human) mapping to 11p11.2.

SOURCE

HARBI1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HARBI1 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-242992 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HARBI1 (N-19) is recommended for detection of HARBI1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HARBI1 (N-19) is also recommended for detection of HARBI1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HARBI1 siRNA (h): sc-97003, HARBI1 shRNA Plasmid (h): sc-97003-SH and HARBI1 shRNA (h) Lentiviral Particles: sc-97003-V.

Molecular Weight of HARBI1: 39 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.