

HBS1L (G-14): sc-161073

BACKGROUND

HBS1L (HBS1-like), also known as EF-1 α or ERFS, is a 684 amino acid protein that belongs to the GTP-binding elongation factor family and exists as multiple alternatively spliced isoforms. Expressed in kidney, brain, heart, placenta, liver, muscle and pancreas, HSB1L is thought to play a role in controlling fetal hemoglobin levels, specifically influencing platelet, monocyte and erythrocyte hemoglobin content. The gene encoding HBS1L maps to a locus on human chromosome 6 that is associated with sickle cell anemia and β -thalassemia, suggesting a role for HBS1L in the pathogenesis of blood disorders.

REFERENCES

- Wallrapp, C., et al. 1998. The product of the mammalian orthologue of the *Saccharomyces cerevisiae* HBS1 gene is phylogenetically related to eukaryotic release factor 3 (eRF3) but does not carry eRF3-like activity. FEBS Lett. 440: 387-392.
- Kikuno, R., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 197-205.
- Menzel, S., et al. 2007. The HBS1L-MYB intergenic region on chromosome 6q23.3 influences erythrocyte, platelet, and monocyte counts in humans. Blood 110: 3624-3626.
- Thein, S.L., et al. 2007. Intergenic variants of HBS1L-MYB are responsible for a major quantitative trait locus on chromosome 6q23 influencing fetal hemoglobin levels in adults. Proc. Natl. Acad. Sci. USA 104: 11346-11351.
- Pandit, R.A., et al. 2008. Association of SNP in exon 1 of HBS1L with hemoglobin F level in β -thalassemia/ hemoglobin E. Int. J. Hematol. 88: 357-361.
- Lette, G., et al. 2008. DNA polymorphisms at the Bcl11A, HBS1L-MYB, and β -globin loci associate with fetal hemoglobin levels and pain crises in sickle cell disease. Proc. Natl. Acad. Sci. USA 105: 11869-11874.
- Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612450. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Creary, L.E., et al. 2009. Genetic variation on chromosome 6 influences F cell levels in healthy individuals of African descent and HbF levels in sickle cell patients. PLoS ONE 4: e4218.

CHROMOSOMAL LOCATION

Genetic locus: HBS1L (human) mapping to 6q23.3; Hbs1l (mouse) mapping to 10 A3.

SOURCE

HBS1L (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HBS1L of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161073 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HBS1L (G-14) is recommended for detection of HBS1L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

HBS1L (G-14) is also recommended for detection of HBS1L in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for HBS1L siRNA (h): sc-95195, HBS1L siRNA (m): sc-145902, HBS1L shRNA Plasmid (h): sc-95195-SH, HBS1L shRNA Plasmid (m): sc-145902-SH, HBS1L shRNA (h) Lentiviral Particles: sc-95195-V and HBS1L shRNA (m) Lentiviral Particles: sc-145902-V.

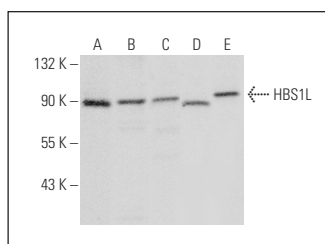
Molecular Weight of HBS1L: 75 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



HBS1L (G-14): sc-161073. Western blot analysis of HBS1L expression in U-251-MG (A), HeLa (B), A549 (C), PC-12 (D) and MCF7 (E) whole cell lysates.

RESEARCH USE

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