SANTA CRUZ BIOTECHNOLOGY, INC.

AHSP (D-12): sc-515436

BACKGROUND

α-hemoglobin stabilizing protein (AHSP), also designated erythroid associated factor (ERAF), is an erythroid-specific protein that acts as a chaperone to prevent the aggregation of α-hemoglobin during normal erythroid cell development. It specifically protects free α-hemoglobin from precipitation in live cells and in solution. It forms a heterodimer with free α-hemoglobin, but not with β-hemoglobin or hemoglobin A (α2-β-2). AHSP localizes to the cytoplasm and is expressed in the blood and bone marrow. The AHSP protein is downregulated in transmissible spongiform encephalopathies (TSEs). AHSP may regulate pathological states of α-hemoglobin excess such as β-thalassemia, a group of hereditary disorders involving the decreased production of normal adult hemoglobin (HbA) that are characterized by a deficiency in the synthesis of β-globin chains.

REFERENCES

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2. Miele, G., Manson, J. and Clinton, M. 2001. A novel erythroid-specific marker of transmissible spongiform encephalopathies. Nat. Med. 7: 361-364.
3. Kihm, A.J., Kong, Y., Hong, W., Russell, J.E., Rouda, S., Adachi, K., Simon, M.C., Blobel, G.A. and Weiss, M.J. 2002. An abundant erythroid protein that stabilizes free alpha-haemoglobin. Nature 417: 758-763.
4. Gell, D., Kong, Y., Eaton, S.A., Weiss, M.J. and Mackay, J.P. 2002. Biophysical characterization of the α-globin binding protein α-hemoglobin stabilizing protein. J. Biol. Chem. 277: 40602-40609.

CHROMOSOMAL LOCATION

Genetic locus: AHSP (human) mapping to 16p11.2.

SOURCE

AHSP (D-12) is a mouse monoclonal antibody raised against amino acids 1-102 representing full length AHSP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AHSP (D-12) is available conjugated to agarose (sc-515436 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515436 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515436 PE), fluorescein (sc-515436 FITC), Alexa Fluor® 488 (sc-515436 AF488), Alexa Fluor® 546 (sc-515436 AF546), Alexa Fluor® 594 (sc-515436 AF594) or Alexa Fluor® 647 (sc-515436 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515436 AF680) or Alexa Fluor® 790 (sc-515436 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

AHSP (D-12) is recommended for detection of AHSP of 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 AHSP siRNA (h): sc-60137, AHSP shRNA Plasmid (h): sc-60137-SH and AHSP shRNA (h) Lentiviral Particles: sc-60137-V.

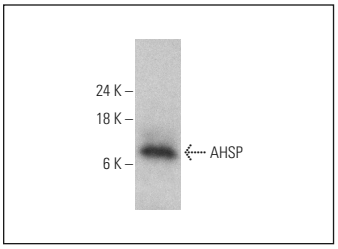
Molecular Weight of AHSP: 12 kDa.

Positive Controls: human bone marrow extract: sc-363752.

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



AHSP (D-12): sc-515436. Western blot analysis of AHSP expression in human bone marrow 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.