SANTA CRUZ BIOTECHNOLOGY, INC.

Hemogen (H-300): sc-68361

BACKGROUND

Hemogen (hemopoietic gene protein, erythroid differentiation-associated gene protein) is a 484 amino acid protein encoded by the human gene HEMGN. Hemogen is a nuclear protein that is expressed in hematopoietic precursor cells and can be detected in $CD34^+$ and K-562 leukemia cell line. It is also expressed in bone marrow, testis, thymus and thyroid tumors, non-Hodgkin lymphoma, various leukemia cell lines, peripheral blood mononuclear cells (PBMCs) and bone marrow mononuclear cells (BMMCs) of patients with leukemia. Hemogen is downregulated during megakaryocytic differentiation of K-562 cells by 12-O-tetradecanoylphorbol-13-acetate (TPA) (at protein level). It can be upregulated in normal PBMCs by mitogens.

REFERENCES

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4. Yang, L.V., Heng, H.H., Wan, J., Southwood, C.M., Gow, A. and Li, L. 2003. Alternative promoters and polyadenylation regulate tissue-specific expression of Hemogen isoforms during hematopoiesis and spermatogenesis. Dev. Dyn. 228: 606-616.
5. Li, C.Y., Zhan, Y.Q., Xu, C.W., Xu, W.X., Wang, S.Y., Lv, J., Zhou, Y., Yue, P.B., Chen, B. and Yang, X.M. 2004. EDAG regulates the proliferation and differentiation of hematopoietic cells and resists cell apoptosis through the activation of nuclear factor κ B. Cell Death Differ. 11: 1299-1308.
6. An, L.L., Li, G., Wu, K.F., Ma, X.T., Zheng, G.G., Qiu, L.G. and Song, Y.H. 2005. High expression of EDAG and its significance in AML. Leukemia 19: 1499-1502.
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CHROMOSOMAL LOCATION

Genetic locus: HEMGN (human) mapping to 9q22.33.

SOURCE

Hemogen (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Hemogen 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.

APPLICATIONS

Hemogen (H-300) is recommended for detection of Hemogen 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)], 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 Hemogen siRNA (h): sc-61859, Hemogen shRNA Plasmid (h): sc-61859-SH and Hemogen shRNA (h) Lentiviral Particles: sc-61859-V.

Molecular Weight of Hemogen: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.