



Hemogen (h): 293T Lysate: sc-115998

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

1. Yang, L.V., Nicholson, R.H., Kaplan, J., Galy, A. and Li, L. 2001. Hemogen is a novel nuclear factor specifically expressed in mouse hematopoietic development and its human homologue EDAG maps to chromosome 9q22, a region containing breakpoints of hematological neoplasms. *Mech. Dev.* 104: 105-111.
2. Lü, J., Xu, W.X., Wang, S.Y., Jiang, Y., Li, C.Y., Cai, W.M. and Yang, X.M. 2002. Isolation and characterization of EDAG-1, a novel gene related to regulation in hematopoietic system. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 33: 641-646.
3. Lü, J., Xu, W.X., Wang, S.Y., Jiang, Y., Li, C.Y., Cai, W.M. and Yang, X.M. 2002. Overexpression of EDAG-1 in NIH/3T3 cells leads to malignant transformation. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 34: 95-98.
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.
7. Yang, L.V., Wan, J., Ge, Y., Fu, Z., Kim, S.Y., Fujiwara, Y., Taub, J.W., Matherly, L.H., Eliason, J. and Li, L. 2006. The GATA site-dependent hemogen promoter is transcriptionally regulated by GATA-1 in hematopoietic and leukemia cells. *Leukemia* 20: 417-425.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

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

PRODUCT

Hemogen (h): 293T Lysate represents a lysate of human Hemogen transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Hemogen (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Hemogen antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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