

# Hemogen (C-5): sc-514749

## 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<sup>+</sup> 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 down-regulated during megakaryocytic differentiation of K-562 cells by 12-O-tetradecanoylphorbol-13-acetate (TPA) (at protein level). It can be up-regulated in normal PBMCs by mitogens.

## REFERENCES

1. Yang, L.V., et al. 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., et al. 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., et al. 2002. Overexpression of EDAG-1 in NIH3T3 cells leads to malignant transformation. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 34: 95-98.
4. Yang, L.V., et al. 2003. Alternative promoters and polyadenylation regulate tissue-specific expression of Hemogen isoforms during hematopoiesis and spermatogenesis. *Dev. Dyn.* 228: 606-616.

## CHROMOSOMAL LOCATION

Genetic locus: Hemgn (mouse) mapping to 4 B1.

## SOURCE

Hemogen (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 412-437 within an internal region of Hemogen of rat origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Hemogen (C-5) is available conjugated to agarose (sc-514749 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514749 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514749 PE), fluorescein (sc-514749 FITC), Alexa Fluor® 488 (sc-514749 AF488), Alexa Fluor® 546 (sc-514749 AF546), Alexa Fluor® 594 (sc-514749 AF594) or Alexa Fluor® 647 (sc-514749 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514749 AF680) or Alexa Fluor® 790 (sc-514749 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514749 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Hemogen (C-5) is recommended for detection of Hemogen of mouse and rat 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 Hemogen siRNA (m): sc-61860, Hemogen shRNA Plasmid (m): sc-61860-SH and Hemogen shRNA (m) Lentiviral Particles: sc-61860-V.

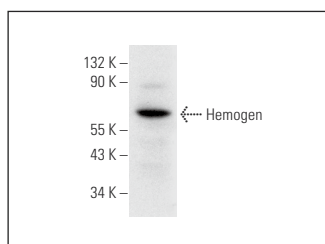
Molecular Weight of Hemogen: 55 kDa.

Positive Controls: RBL-1 whole cell lysate: sc-364790.

## 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



Hemogen (C-5): sc-514749. Western blot analysis of Hemogen expression in RBL-1 whole cell lysate.

## 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](http://www.scbt.com) for detailed protocols and support products.

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