

# HEM1 (N-15): sc-107590

## BACKGROUND

HEM1 (hematopoietic protein 1), also known as NCKAP1L (NCK-associated protein 1-like), is a 1,127 amino acid single-pass membrane protein that localizes to the cytoplasmic side of the cell membrane. One of several members of the highly conserved HEM family of tissue-specific transmembrane proteins, HEM1 is expressed in cells of hematopoietic origin, where it is thought to play an important role in oogenesis. The gene encoding HEM1 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

- Hromas, R., et al. 1991. HEM1, a potential membrane protein, with expression restricted to blood cells. *Biochim. Biophys. Acta* 1090: 241-244.
- Online Mendelian Inheritance in Man, OMIM™. 1993. Johns Hopkins University, Baltimore, MD. MIM Number: 141180. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Baumgartner, S., et al. 1995. The HEM proteins: a novel family of tissue-specific transmembrane proteins expressed from invertebrates through mammals with an essential function in oogenesis. *J. Mol. Biol.* 251: 41-49.
- Weiner, O.D., et al. 2006. HEM1 complexes are essential for Rac activation, Actin polymerization, and Myosin regulation during neutrophil chemotaxis. *PLoS Biol.* 4: e38.
- Joshi, A.D., et al. 2007. Atm, CTLA-4, MND4, and HEM1 in high versus low CD38 expressing B-cell chronic lymphocytic leukemia. *Clin. Cancer Res.* 13: 5295-5304.
- Weiner, O.D., et al. 2007. An Actin-based wave generator organizes cell motility. *PLoS Biol.* 5: e221.

## CHROMOSOMAL LOCATION

Genetic locus: NCKAP1L (human) mapping to 12q13.13; Nckap1l (mouse) mapping to 15 F3.

## SOURCE

HEM1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HEM1 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.

Blocking peptide available for competition studies, sc-107590 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

HEM1 (N-15) is recommended for detection of HEM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HEM1 (N-15) is also recommended for detection of HEM1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HEM1 siRNA (h): sc-96028, HEM1 siRNA (m): sc-145935, HEM1 shRNA Plasmid (h): sc-96028-SH, HEM1 shRNA Plasmid (m): sc-145935-SH, HEM1 shRNA (h) Lentiviral Particles: sc-96028-V and HEM1 shRNA (m) Lentiviral Particles: sc-145935-V.

Molecular Weight of HEM1: 128 kDa.

## 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) 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.

## 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) or our catalog for detailed protocols and support products.