

NGAL (H-130): sc-50350

BACKGROUND

In addition to the monomeric mammalian progelatinase, two additional forms of progelatinase have been identified. The shorter of these additional forms is a covalently linked, disulfide-bridged protein that heterodimerizes with a short protein; an α_2 -Microglobulin-related protein known as neutrophil gelatinase-associated lipocalin (NGAL), which is moderately expressed in breast and lung tissues. NGAL belongs to the lipocalin family and has a high degree of similarity with rat α_2 -Microglobulin-related protein and mouse protein 24p3. NGAL is able to bind a derivative of the bacterial chemotactic peptide, suggesting that it has important immuno-modulatory functions. NGAL has been described as an inflammatory protein; it is released into the circulation as a result of the inflammatory activation of leukocytes initiated by the extra-corporeal circulation. In addition, NGAL synthesis is induced in epithelial cells in inflammatory and neoplastic colorectal diseases. In conclusion, NGAL may serve as a scavenger of bacterial products to function in the anti-inflammatory process.

REFERENCES

1. Triebel, S., et al. 1992. A 25 kDa α_2 -Microglobulin-related protein is a component of the 125 kDa form of human gelatinase. FEBS Lett. 314: 386-388.
2. Kjeldsen, L., et al. 1993. Isolation and primary structure of NGAL, a novel protein associated with human neutrophil gelatinase. J. Biol. Chem. 268: 10425-10432.

CHROMOSOMAL LOCATION

Genetic locus: LCN2 (human) mapping to 9q34.11.

SOURCE

NGAL (H-130) is a rabbit polyclonal antibody raised against amino acids 58-187 mapping within an internal region of NGAL of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NGAL (H-130) is recommended for detection of NGAL of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 NGAL siRNA (h): sc-43969, NGAL shRNA Plasmid (h): sc-43969-SH and NGAL shRNA (h) Lentiviral Particles: sc-43969-V.

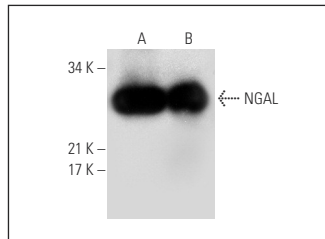
Molecular Weight of NGAL: 23 kDa.

Positive Controls: human bone marrow extract: sc-363752, human uterus extract: sc-363784 or human kidney extract: sc-363764.

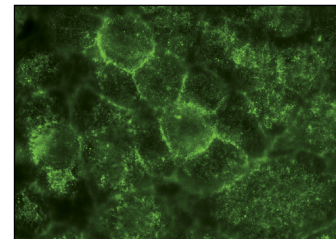
RECOMMENDED SECONDARY REAGENTS

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.

DATA



NGAL (H-130): sc-50350. Western blot analysis of NGAL expression in human bone marrow (A) and human uterus (B) tissue extracts.



NGAL (H-130): sc-50350. Immunofluorescence staining of methanol-fixed HeLa cells showing cell surface localization.

SELECT PRODUCT CITATIONS

1. Conrotto, P., et al. 2008. Identification of new accessible tumor antigens in human colon cancer by *ex vivo* protein biotinylation and comparative mass spectrometry analysis. Int. J. Cancer 123: 2856-2864.

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.

MONOS
Satisfaction
Guaranteed

Try **NGAL (5G5): sc-57517**, our highly recommended monoclonal alternative to NGAL (H-130).