



NGAL (ABS 039-08): sc-80561

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 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 immunomodulatory 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

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6. Jönsson, P., Stahl, M.L. and Ohlsson, K. 1999. Extracorporeal circulation causes release of neutrophil gelatinase-associated lipocalin (NGAL). *Mediators Inflamm.* 8: 169-171.
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CHROMOSOMAL LOCATION

Genetic locus: Lcn2 (mouse) mapping to 2 B.

SOURCE

NGAL (ABS 039-08) is a mouse monoclonal antibody raised against NGAL of rat origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NGNGAL (ABS 039-08) is recommended for detection of NGAL of mouse and rat origin by 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); non cross-reactive with mouse, human, porcine and canine NGAL.

Suitable for use as control antibody for NGAL siRNA (m): sc-60044, NGAL shRNA Plasmid (m): sc-60044-SH and NGAL shRNA (m) Lentiviral Particles: sc-60044-V.

Molecular Weight of NGAL: 23 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

SELECT PRODUCT CITATIONS

1. Annamalai, C., Ganesh, R.N. and Viswanathan, P. 2020. Ferrotoxicity and its amelioration by endogenous vitamin D in experimental acute kidney injury. *Exp. Biol. Med.* 245: 1474-1489.

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 for detailed protocols and support products.