SANTA CRUZ BIOTECHNOLOGY, INC.

NGAL (M-145): sc-50351

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

NGAL (M-145) is a rabbit polyclonal antibody raised against amino acids 17-161 mapping within an internal region of NGAL of mouse origin.

PRODUCT

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

APPLICATIONS

NGAL (M-145) is recommended for detection of NGAL of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 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.

Positive Controls: mouse liver extract: sc-2256, rat brain extract: sc-2392 or mouse ovary extract: sc-2404.

STORAGE

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

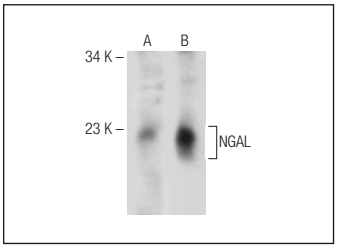
PROTOCOLS

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

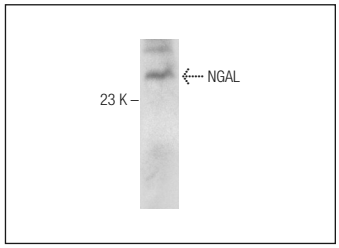
RESEARCH USE

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

DATA



NGAL (M-145): sc-50351. Western blot analysis of NGAL expression in mouse liver (**A**) and rat brain (**B**) tissue extracts.



NGAL (M-145): sc-50351. Western blot analysis of NGAL expression in mouse ovary tissue extract.

SELECT PRODUCT CITATIONS

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4. Li, S.H., et al. 2009. Upregulation of neutrophil gelatinase-associated lipocalin by ErbB2 through nuclear factor-κB activation. Cancer Res. 69: 9163-9168.
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7. McKittrick, I.B., et al. 2011. Urinary matrix metalloproteinase activities: biomarkers for plaque angiogenesis and nephropathy in diabetes. Am. J. Physiol. Renal Physiol. 301: F1326-F1333.