

Anti-Lipocalin-2/NGAL Antibody
Catalog # ABO12296**Specification**

Anti-Lipocalin-2/NGAL Antibody - Product Information

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|-------------------|------------------------|
| Application | WB, IHC-P, E |
| Primary Accession | P80188 |
| Host | Rabbit |
| Reactivity | Human |
| Clonality | Polyclonal |
| Format | Lyophilized |

Description

Rabbit IgG polyclonal antibody for Neutrophil gelatinase-associated lipocalin(LCN2) detection.
Tested with WB, IHC-P, ELISA in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Lipocalin-2/NGAL Antibody - Additional Information

Gene ID 3934

Other Names

Neutrophil gelatinase-associated lipocalin, NGAL, 25 kDa alpha-2-microglobulin-related subunit of MMP-9, Lipocalin-2, Oncogene 24p3, Siderocalin LCN2, p25, LCN2, HNL, NGAL

Calculated MW

22588 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

ELISA , 0.1-0.5 µg/ml, Human, -
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Secreted . Upon binding to the SLC22A17 (24p3R) receptor, it is internalized.

Tissue Specificity

Expressed in bone marrow and in tissues that are prone to exposure to microorganism. High expression is found in bone marrow as well as in uterus, prostate, salivary gland, stomach, appendix, colon, trachea and lung. Not found in the small intestine or peripheral blood leukocytes.

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Protein Name

Neutrophil gelatinase-associated lipocalin

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human Lipocalin 2 recombinant protein (Position: Q21-G198). Human Lipocalin 2 shares 62 % and 64.4 % amino acid (aa) sequence identity with mouse and rat Lipocalin 2, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the calycin superfamily. Lipocalin family.

Anti-Lipocalin-2/NGAL Antibody - Protein Information

Name LCN2

Synonyms HNL, NGAL {ECO:0000303|PubMed:8060329}

Function

Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development (PubMed: 12453413, PubMed: 20581821, PubMed: 27780864). Binds iron through association with 2,3-dihydroxybenzoic acid (2,3-DHBA), a siderophore that shares structural similarities with bacterial enterobactin, and delivers or removes iron from the cell, depending on the context. Iron-bound form (holo-24p3) is internalized following binding to the SLC22A17 (24p3R) receptor, leading to release of iron and subsequent increase of intracellular iron concentration. In contrast, association of the iron-free form (apo-24p3) with the SLC22A17 (24p3R) receptor is followed by association with an intracellular siderophore, iron chelation and iron transfer to the extracellular medium, thereby reducing intracellular iron concentration. Involved in apoptosis due to interleukin-3 (IL3) deprivation: iron-loaded form increases intracellular iron concentration without promoting apoptosis, while iron-free form decreases intracellular iron levels, inducing expression of the proapoptotic protein BCL2L1/BIM, resulting in apoptosis (By similarity). Involved in innate immunity; limits bacterial proliferation by sequestering iron bound to microbial siderophores, such as enterobactin (PubMed: 27780864). Can also bind siderophores from M.tuberculosis (PubMed: 15642259, PubMed: 21978368).

Cellular Location

Secreted. Cytoplasmic granule lumen. Cytoplasmic vesicle lumen. Note=Upon binding to the SLC22A17 (24p3R) receptor, it is internalized (By similarity). Releases the bound iron in the acidic lumen of cytoplasmic vesicles (PubMed:12453413, PubMed:20581821). {ECO:0000250|UniProtKB:P11672, ECO:0000269|PubMed:12453413, ECO:0000269|PubMed:20581821}

Tissue Location

Detected in neutrophils (at protein level) (PubMed:7683678, PubMed:8298140). Expressed in bone

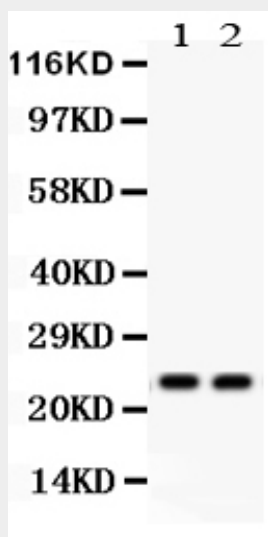
marrow and in tissues that are prone to exposure to microorganism (PubMed:9339356) High expression is found in bone marrow as well as in uterus, prostate, salivary gland, stomach, appendix, colon, trachea and lung (PubMed:9339356). Expressed in the medullary tubules of the kidney (PubMed:30418175). Not found in the small intestine or peripheral blood leukocytes (PubMed:9339356).

Anti-Lipocalin-2/NGAL Antibody - Protocols

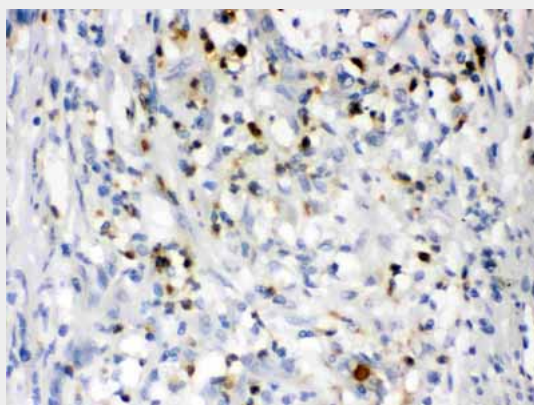
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Lipocalin-2/NGAL Antibody - Images



Anti- Lipocalin 2 Picoband antibody, ABO12296, Western blotting All lanes: Anti Lipocalin 2 (ABO12296) at 0.5ug/ml Lane 1: A549 Whole Cell Lysate at 40ug Lane 2: SMMC Whole Cell Lysate at 40ug Predicted bind size: 22KD Observed bind size: 22KD



Anti- Lipocalin 2 Picoband antibody, ABO12296, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Lipocalin-2/NGAL Antibody - Background

Euophile gelatinase-associated lipocalin (NGAL) is a protein that in humans is encoded by the LCN2 gene. The binding of lipocalin-2 to bacterial siderophores is important in the innate immune response to bacterial infection. Upon encountering invading bacteria the toll-like receptors on immune cells stimulate the synthesis and secretion of lipocalin-2. Secreted lipocalin-2 then limits bacterial growth by sequestering iron-containing siderophores. Lipocalin-2 also functions as a growth factor.