

Anti-Lipocalin-2/NGAL Antibody

Catalog # ABO12296

Product Information

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.

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
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. .
Source	Eukaryota
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 r ° Constitution, 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.

Protein Information

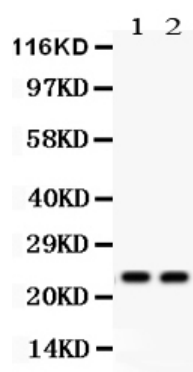
Name	LCN2
Synonyms	HNL, NGAL {ECO:0000303 PubMed:8060329}
Function	Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development (PubMed: 12453413 , PubMed: 20581821 , PubMed: 27780864). Binds iron through association with 2,3-dihydroxybenzoic acid (2,3-DHBA), 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 BCL2L11/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).

Background

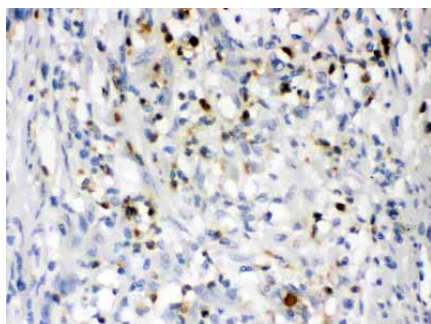
Europhile gelatinase-associated lipocalin (NGAL) is a protein that in humans is encoded by the LCN2 gene. The binding of lipocalin-2 to bacterial siderophores is important in the innate immune response to bacterial infection. Upon encountering invading bacteria the toll-like receptors on immune cells 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.

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

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