

LCN2 / Lipocalin 2 / NGAL Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS12288**Specification****LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	P80188
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	23kDa KDa

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - 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

Target/Specificity

Human LCN2.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - 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](http://www.uniprot.org/citations/12453413), PubMed: [27780864](http://www.uniprot.org/citations/27780864), PubMed: [20581821](http://www.uniprot.org/citations/20581821)). 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

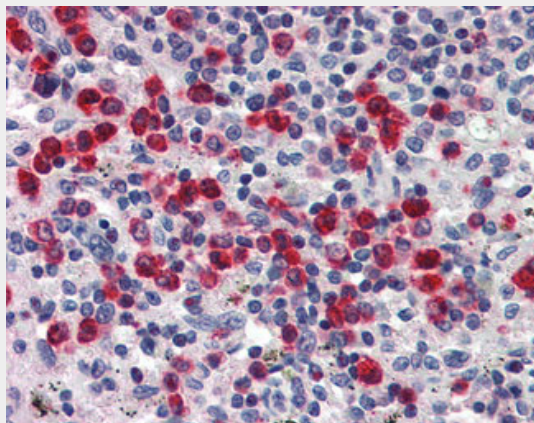
Detected in neutrophils (at protein level) (PubMed:7683678, PubMed:8298140). Expressed in bone marrow and in tissues that are prone to exposure to microorganism (PubMed:9339356) High expression is found in bone marrow as well as in uterus, prostate, salivary gland, stomach, appendix, colon, trachea and 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).

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - 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](#)

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - Images



Anti-LCN2 antibody IHC of human spleen.

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - Background

Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development. Binds iron through association with 2,5-dihydroxybenzoic acid (2,5- 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. Involved in innate immunity, possibly by sequestering iron, leading to limit bacterial growth.

LCN2 / Lipocalin 2 / NGAL Antibody (Internal) - References

Bundgaard J.R.,et al.Biochem. Biophys. Res. Commun. 202:1468-1475(1994).
Cowland J.B.,et al.Genomics 45:17-23(1997).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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Humphray S.J.,et al.Nature 429:369-374(2004).