

**Goat Anti-Lipocalin 2 / NGAL Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1628b****Specification**

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**Goat Anti-Lipocalin 2 / NGAL Antibody - Product Information**

Application	WB, IHC, E
Primary Accession	<a href="#">P80188</a>
Other Accession	<a href="#">NP_005555</a> , <a href="#">3934</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	22588

**Goat 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

**Dilution**

WB~~1:1000  
IHC~~1:100~500  
E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Lipocalin 2 / NGAL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Lipocalin 2 / NGAL Antibody - Protein Information****Name** LCN2**Synonyms** HNL, NGAL {ECO:0000303|PubMed:8060329}

**Function**

Iron-transporting protein involved in multiple processes such as apoptosis, innate immunity and renal development (PubMed:<a href="http://www.uniprot.org/citations/12453413" target="\_blank">12453413</a>, PubMed:<a href="http://www.uniprot.org/citations/20581821" target="\_blank">20581821</a>, PubMed:<a href="http://www.uniprot.org/citations/27780864" target="\_blank">27780864</a>). 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:<a href="http://www.uniprot.org/citations/27780864" target="\_blank">27780864</a>). Can also bind siderophores from M.tuberculosis (PubMed:<a href="http://www.uniprot.org/citations/15642259" target="\_blank">15642259</a>, PubMed:<a href="http://www.uniprot.org/citations/21978368" target="\_blank">21978368</a>).

**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}

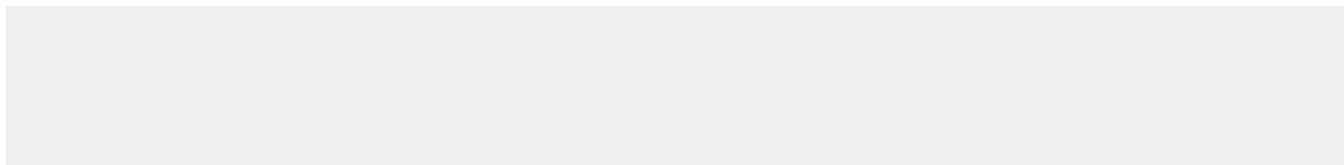
**Tissue Location**

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).

**Goat Anti-Lipocalin 2 / NGAL Antibody - Protocols**

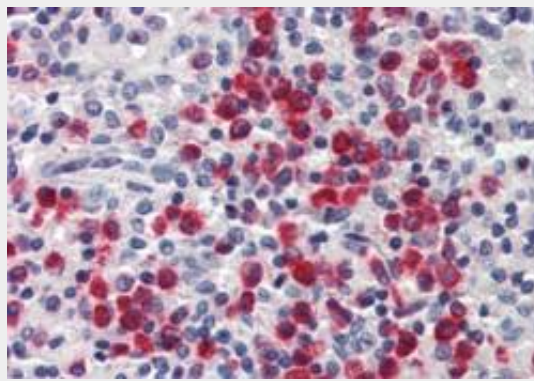
Provided below are standard protocols that you may find useful for product applications.

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

**Goat Anti-Lipocalin 2 / NGAL Antibody - Images**

250kDa  
150kDa  
100kDa  
75kDa  
50kDa  
37kDa  
25kDa  
20kDa  
15kDa  
10kDa

AF1628b (0.03 µg/ml) staining of Human Kidney lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1628b (2.5 µg/ml) staining of paraffin embedded Human Spleen. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

#### Goat Anti-Lipocalin 2 / NGAL Antibody - References

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet, 2010 Jul 8. PMID 20628624.

Examination of genetic polymorphisms in newborns for signatures of sex-specific prenatal selection. Ucisik-Akkaya E, et al. Mol Hum Reprod, 2010 Oct. PMID 20587610.

Up-regulation of lipocalin 2 is associated with high-risk human papillomavirus and grade of cervical lesion at baseline but does not predict outcomes of infections or incident cervical intraepithelial neoplasia. Syrj nen S, et al. Am J Clin Pathol, 2010 Jul. PMID 20551266.

Implication of granulocyte-macrophage colony-stimulating factor induced neutrophil gelatinase-associated lipocalin in pathogenesis of rheumatoid arthritis revealed by proteome analysis. Katano M, et al. Arthritis Res Ther, 2009. PMID 20527084.

Parenteral iron formulations differentially affect MCP-1, HO-1, and NGAL gene expression and renal responses to injury. Johnson AC, et al. Am J Physiol Renal Physiol, 2010 Aug. PMID 20504881.