

Anti-Lipocalin-2/NGAL Antibody
Catalog # ABO10707**Specification**

Anti-Lipocalin-2/NGAL Antibody - Product Information

Application	WB, IHC
Primary Accession	P30152
Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Format	Lyophilized

Description

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

Reconstitution

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

Anti-Lipocalin-2/NGAL Antibody - Additional Information

Gene ID 170496

Other Names

Neutrophil gelatinase-associated lipocalin, NGAL, Alpha-2-microglobulin-related protein, Alpha-2U globulin-related protein, Lipocalin-2, Siderocalin LCN2, p25, Lcn2

Calculated MW

22476 MW KDa

Application Details

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

Western blot, 0.1-0.5 µg/ml, Rat

Subcellular Localization

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

Protein Name

Neutrophil gelatinase-associated lipocalin(NGAL)

Contents

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

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of rat Lipocalin 2(38-53aa LQPGFWTERFQGRWV).

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.

Anti-Lipocalin-2/NGAL Antibody - Protein Information

Name Lcn2

Function

Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development (By similarity). 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. Can also bind siderophores from M.tuberculosis (By similarity).

Cellular Location

Secreted {ECO:0000250|UniProtKB:P80188}. Cytoplasmic granule lumen {ECO:0000250|UniProtKB:P80188}. Cytoplasmic vesicle lumen {ECO:0000250|UniProtKB:P80188}. Note=Upon binding to the SLC22A17 (24p3R) receptor, it is internalized (By similarity). Releases the bound iron in the acidic lumen of cytoplasmic vesicles (By similarity). {ECO:0000250|UniProtKB:P11672, ECO:0000250|UniProtKB:P80188}

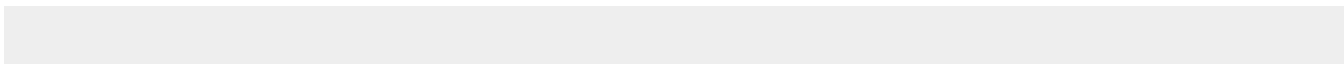
Tissue Location

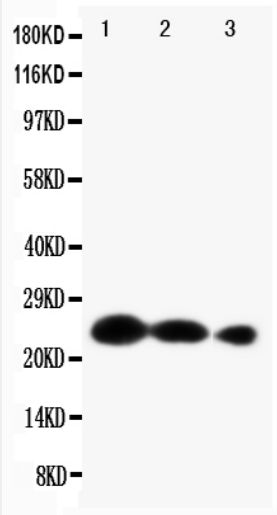
Detected in the ureteric bud in embryonic kidney (at protein level).

Anti-Lipocalin-2/NGAL Antibody - Protocols

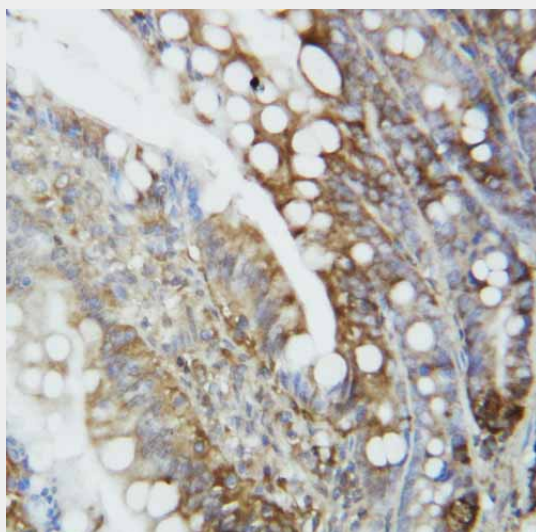
Provided below are standard protocols that you may find useful for product applications.

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

Anti-Lipocalin-2/NGAL Antibody - Images



Anti-Lipocalin 2 antibody, ABO10707, Western blotting Lane 1: Recombinant Rat NGAL Protein 10ng Lane 2: Recombinant Rat NGAL Protein 5ng Lane 3: Recombinant Rat NGAL Protein 2.5ng



Anti-Lipocalin 2 antibody, ABO10707, IHC(P) IHC(P): Rat Intestine Tissue Lysate

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.