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Anti-Lipocalin-2 Reference Antibody (NYU patent anti-Lipocalin-2)

Catalog # APR11427

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P80188
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	22588

Additional Information

Target/Specificity	Lipocalin-2
Expression system	CHO

Protein Information

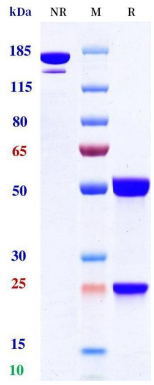
Name	LCN2
Synonyms	HNL, NGAL {ECO:0000303|PubMed:8060329}
Function	Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development (PubMed:12453413, PubMed:20581821, PubMed:27780864). Binds iron through association with 2,3-dihydroxybenzoic acid (2,3-DHBA),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

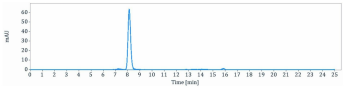
Tissue Location

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).

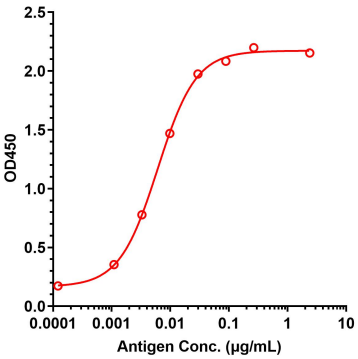
Images



Anti-Lipocalin-2 Reference Antibody (NYU patent anti-Lipocalin-2) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-Lipocalin-2 Reference Antibody (NYU patent anti-Lipocalin-2) is 96.08%, determined by SEC-HPLC.



Immobilized hu-Lipocalin-2-his at 2 μg/mL can bind NYU patent anti-Lipocalin-2, EC50= 0.006098 μg/mL.

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