

Product datasheet for **TP723846**

NGAL (Lcn2) (NM_008491) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse lipocalin 2 (Lcn2 / NGAL)
Species:	Mouse
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	Mouse NGAL, the region of Gln21-Asn200, from gene Accession# NP_032517
Tag:	C-His
Predicted MW:	23 kDa
Concentration:	lot specific
Purity:	>95%, as determined by Coomassie stained SDS-PAGE.
Buffer:	1 x PBS
Bioactivity:	The BC50 = 0.7 μ M, determined by dose dependent binding of the protein (4 μ M) with [Fe ³⁺ (DHBA) ₃] complex.
Endotoxin:	Less than 0.01 ng per μ g protein as determine by the LAL method
Storage:	Store at -80°C.
Stability:	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
RefSeq:	NP_032517
Locus ID:	16819
UniProt ID:	P11672
RefSeq Size:	853
Cytogenetics:	2 22.09 cM
RefSeq ORF:	600
Synonyms:	24p3; AW212229; NRL; Sip24



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Summary:

Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development (PubMed:12453413). 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 BCL2L1/BIM, resulting in apoptosis. Involved in innate immunity; limits bacterial proliferation by sequestering iron bound to microbial siderophores, such as enterobactin (PubMed:15531878, PubMed:16446425). Can also bind siderophores from *M.tuberculosis* (By similarity).[UniProtKB/Swiss-Prot Function]