

Lipocalin-2/NGAL Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P701082
Synonyms:	NGAL; Lipocalin-2; Oncogene 24p3; p25; Siderocalin LCN2; MSFI
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005580845.2 (Q21-G198)
Gene ID:	/
Molecular Weight:	25-30 kDa

PROPERTIES

Biological Activity	Immobilized Cynomolgus NGAL, His Tag at 0.2µg/ml (100µl/Well) on the plate. Dose response curve for Anti-NGAL Antibody, hFc Tag with the EC ₅₀ of 11ng/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

Lipocalin-2/NGAL, a multifaceted iron-trafficking protein, participates in diverse biological processes including apoptosis, innate immunity, and renal development. Through its association with the siderophore 2,3-dihydroxybenzoic acid (2,3-DHBA), Lipocalin-2 binds and shuttles iron, dynamically influencing cellular iron concentrations based on the holo-24p3 (iron-bound) or apo-24p3 (iron-free) forms. The interaction with the SLC22A17 receptor mediates iron release or chelation, finely regulating intracellular iron levels. In apoptosis triggered by interleukin-3 (IL3) deprivation, the iron-loaded form prevents apoptosis, while the iron-free form induces BCL2L11/BIM expression, leading to programmed cell death. Lipocalin-2 also contributes to innate immunity by sequestering bacterial siderophores, such as enterobactin, and exhibits the ability to bind siderophores from *M. tuberculosis*. Structurally, Lipocalin-2 exists as a monomer, homodimer (disulfide-linked), and forms a heterodimer (disulfide-linked) with MMP9. These diverse interactions underscore the versatility of Lipocalin-2 in orchestrating critical cellular and immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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