

Human Lipocalin-2 ELISA Kit (NGAL) ab119600

6 References 1 Image

Overview

Product name Human Lipocalin-2 ELISA Kit (NGAL)

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	1	16	256pg/ml	19.2	= 7.5%
	2	16	1510pg/ml	81.54	= 5.4%
	3	16	5422pg/ml	281.94	= 5.2%

	Inter-assay				
	Sample	n	Mean	SD	CV%
	1	24	254pg/ml	19.05	= 7.5%
	2	24	1537pg/ml	84.53	= 5.5%
	3	24	5138pg/ml	323.69	= 6.3%

Sample type Cell culture supernatant, Saliva, Urine, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 156 pg/ml - 10000 pg/ml

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Abcam's Human Lipocalin-2 (NGAL) *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of Human Lipocalin-2 in cell culture supernatants, serum, plasma (heparin), saliva and urine.

A Lipocalin-2 specific mouse monoclonal antibody has been precoated onto 96-well plates. Standards and test samples are added to the wells and incubated. A biotinylated detection

polyclonal antibody from goat specific for Lipocalin-2 is then added followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. TMB is then used to visualize the HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the Human Lipocalin-2 amount of sample captured in plate.

**Platform** Microplate

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml	1 x 12ml
Antibody Diluent Buffer	Green Cap	1 x 12ml	1 x 12ml
Anti-Human Lipocalin-2 antibody Microplate (12 x 8 wells)		1 unit	1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl	1 x 100µl
Biotinylated anti-Human Lipocalin-2 antibody		1 x 100µl	1 x 100µl
Lyophilized recombinant Human Lipocalin-2 standard		2 x 10ng	2 x 10ng
Plate Seal		1 x 4 units	1 x 4 units
Sample Diluent Buffer	Green Cap	1 x 30ml	1 x 30ml
TMB Color Developing Agent	Amber Bottle	1 x 10ml	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml	1 x 10ml
Wash Buffer (25X)		1 x 20ml	1 x 20ml

**Function** Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development. 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 BCL2L11/BIM, resulting in apoptosis. Involved in innate immunity, possibly by sequestering iron, leading to limit bacterial growth.

**Tissue specificity** Expressed in bone marrow and in tissues that are prone to exposure to microorganism. High expression is found in bone marrow as well as in uterus, prostate, salivary gland, stomach,

appendix, colon, trachea and lung. Not found in the small intestine or peripheral blood leukocytes.

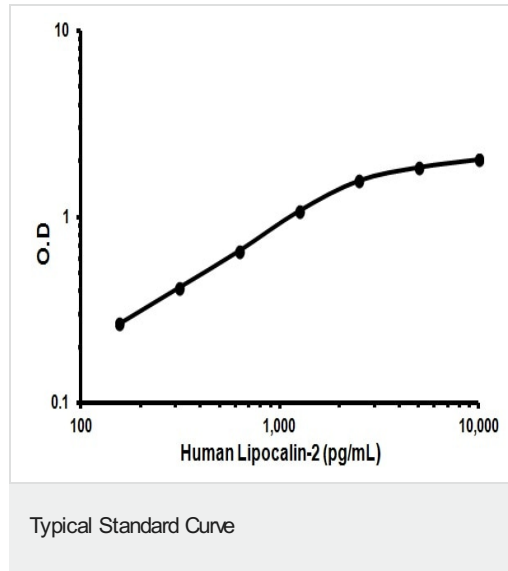
**Sequence similarities**

Belongs to the calycin superfamily. Lipocalin family.

**Cellular localization**

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

**Images**



Representative Standard Curve using ab119600

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