

Product datasheet

Human Lipocalin 2 ELISA Kit (NGAL) ab113326

[4 References](#) [1 Image](#)

Overview

Product name	Human Lipocalin 2 ELISA Kit (NGAL)
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 4 pg/ml
Range	4.1 pg/ml - 1000 pg/ml
Recovery	96 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	75.47	69% - 88%
Serum	103.9	94% - 112%
Plasma	109.3	96% - 130%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's Lipocalin 2 Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human Lipocalin 2 in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for Human Lipocalin 2 coated on a 96- well plate. Standards and samples are pipetted into the wells and Lipocalin 2 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human Lipocalin 2 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of Lipocalin 2 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Notes Optimization may be required with urine samples.

Platform Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
5X Assay Diluent	1 x 15ml
600X HRP-Streptavidin Concentrate	1 x 200µl
Biotinylated anti-Human Lipocalin 2	2 vials
Lipocalin 2 Microplate (12 x 8 wells)	1 unit
Recombinant Human Lipocalin 2 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

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.

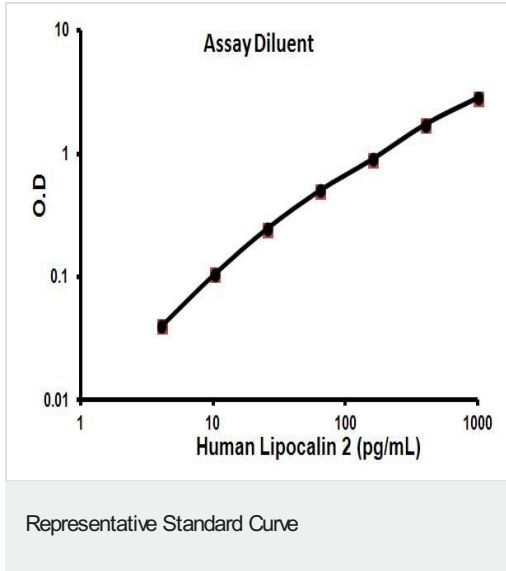
Sequence similarities

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 ab113326

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