

Rat Lipocalin-2 ELISA Kit ab207925

4 References 1 Image

Overview

Product name Rat Lipocalin-2 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
U1	8			= 3%
U2	8			= 3%
P1	8			= 3%
P2	8			= 4%

Inter-assay

Sample	n	Mean	SD	CV%
Urine	6			= 10%
Plasma	5			= 12%

Sample type Urine, Serum, Plasma, Tissue Extracts, Tissue Culture Media

Assay type Sandwich (quantitative)

Sensitivity = 0.5 pg/ml

Range 4 pg/ml - 400 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Urine	= 106	61pg/ml - 350pg/ml
Plasma	= 104	54pg/ml - 349pg/ml

Assay time 4h 00m

Assay duration	Multiple steps standard assay
Species reactivity	Reacts with: Rat
Product overview	<p>Abcam's Rat Lipocalin-2 ELISA Kit (ab207925) is an <i>in vitro</i> enzyme-linked immunosorbent assay (ELISA) for the quantitative measurement of Neutrophil Gelatinase-Associated Lipocalin levels in urine, plasma or serum, tissue extracts or culture media samples.</p> <p>The assay is a sandwich ELISA performed in microwells coated with a mouse monoclonal antibody against Rat NGAL. Bound NGAL is detected with another mouse monoclonal antibody labeled with biotin and the assay is developed with horseradish peroxidase (HRP)-conjugated streptavidin and a color-forming substrate.</p> <p>Please be aware this kit is supplied with a pre-coated 96-well plate that does not break into strips.</p>
Notes	<p>NGAL (neutrophil gelatinase-associated lipocalin) belongs to the lipocalin family of proteins. These are secreted proteins characterized by their ability to bind small hydrophobic molecules in a structurally conserved pocket formed by β-pleated sheet, to bind to specific cell-surface receptors, and to form macromolecular complexes. NGAL has many synonyms: perhaps the most widely used is lipocalin 2 (LCN 2); more recently the name siderocalin has been used to express NGAL's ability to bind bacterial siderophores. In the rat, NGAL was first named 25 kDa α_2-microglobulin-related protein, and later <i>neurelated</i> lipocalin (NRL) because of its expression in mammary tumors initiated by the <i>neu</i> (HER2/c-erbB-2) oncogene. In the mouse, the homologous protein is known as oncogene protein 24p3, 24-kDa superinducible protein (SIP24) or uterocalin.</p>
Platform	Pre-coated microplate (12 x 8 well strips)

Properties

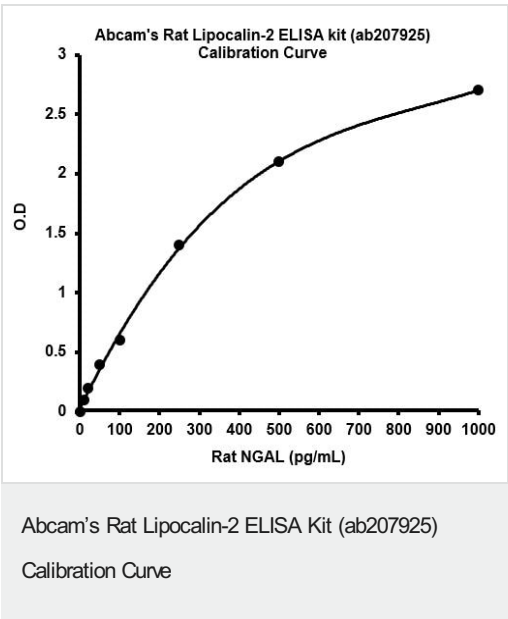
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
25x Wash Buffer Solution	1 x 40ml
5x Sample Diluent Buffer	1 x 50ml
Biotinylated Rat-NGAL Antibody	1 x 12ml
HRP-Streptavidin Solution	1 x 12ml
Microwell plate, 96 precoated wells	1 x 96 tests
Rat NGAL Standard (0 pg/mL)	1 x 1ml
Rat NGAL Standard (10 pg/mL)	1 x 1ml
Rat NGAL Standard (100 pg/mL)	1 x 1ml
Rat NGAL Standard (20 pg/mL)	1 x 1ml
Rat NGAL Standard (200 pg/mL)	1 x 1ml

Components	1 x 96 tests
Rat NGAL Standard (4 pg/mL)	1 x 1ml
Rat NGAL Standard (40 pg/mL)	1 x 1ml
Rat NGAL Standard (400 pg/mL)	1 x 1ml
Stop Solution	1 x 12ml
TMB Substrate Solution	1 x 12ml

Function	<p>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.</p>
Tissue specificity	<p>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.</p>
Sequence similarities	<p>Belongs to the calycin superfamily. Lipocalin family.</p>
Cellular localization	<p>Secreted. Upon binding to the SLC22A17 (24p3R) receptor, it is internalized.</p>

Images



Abcam’s Rat Lipocalin-2 ELISA Kit (ab207925) Calibration Curve

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