

Mouse Lipocalin-2 ELISA Kit (NGAL) ab199083

リコンビナント SimpleStep ELISA

★★★★★ [2 Abreviews](#) [10 References](#) [画像数 8](#)

製品の概要

製品名 Mouse Lipocalin-2 ELISA Kit (NGAL)

検出方法 Colorimetric

再現性 Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Serum	5			3.7%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Serum	3			6.1%

サンプルの種類 Cell culture supernatant, Urine, Serum, EDTA Plasma, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 1.1 pg/ml

検出範囲 4.69 pg/ml - 300 pg/ml

添加回収試験 特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Urine	105	100% - 107%
Serum	109	106% - 110%
Cell culture media	104	102% - 107%
EDTA Plasma	107	87% - 120%
Cit plasma	109	98% - 116%
serum free media	99	98% - 103%

全工程の試験時間	1h 30m
ステップ	One step assay
種交差性	交差種: Mouse 非交差種: Goat, Cow, Pig

製品の概要 Mouse Lipocalin-2 ELISA Kit (NGAL) (ab199083) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Lipocalin-2 (NGAL) protein in cit plasma, serum, urine, edta plasma, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Lipocalin-2 (NGAL) with 1.1 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

特記事項 Lipocalin-2 (also known as Neutrophil gelatinase-associated lipocalin or NGAL) is an iron binding and iron trafficking protein. Lipocalin-2 is involved in multiple cellular processes including apoptosis, innate immunity and renal development. Mice deficient in Lipocalin-2 appear normal but have increased susceptibility to bacterial infection. The bacteriostatic function may be related to Lipocalin-2 limiting bacterial iron supply. Mouse Lipocalin-2 has 81% and 62% protein sequence identity to rat and human Lipocalin-2, respectively.

試験プラットフォーム Microplate (12 x 8 well strips)

製品の特性

保存方法 Store at +4°C. Please refer to protocols.

内容	1 x 96 tests	10 x 96 tests
10X Mouse Lipocalin-2 Capture Antibody	1 x 600µl	1 x 6000µl
10X Mouse Lipocalin-2 Detector Antibody	1 x 600µl	1 x 6000µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 5B	1 x 6ml	10 x 6ml
Mouse Lipocalin-2 Lyophilized Recombinant Protein	2 vials	2 x 10 vials
Plate Seals	1 unit	1 x 10 units

内容	1 x 96 tests	10 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

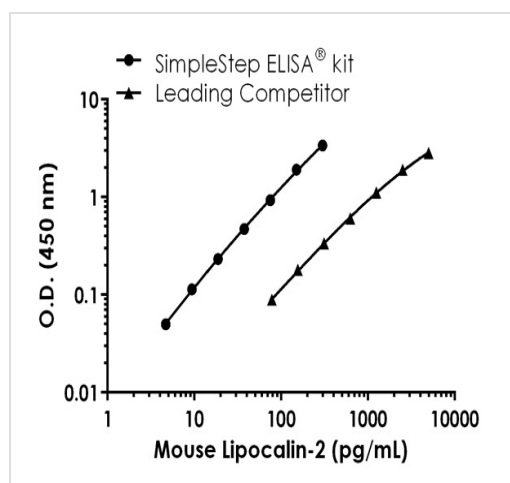
機能 Iron-trafficking protein involved in multiple processes such as apoptosis, innate immunity and renal development. Binds iron through association with 2,5-dihydroxybenzoic acid (2,5-DHBA), a siderophore that shares structural similarities with bacterial enterobactin, and delivers or removes iron from 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.

組織特異性 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.

配列類似性 Belongs to the calycin superfamily. Lipocalin family.

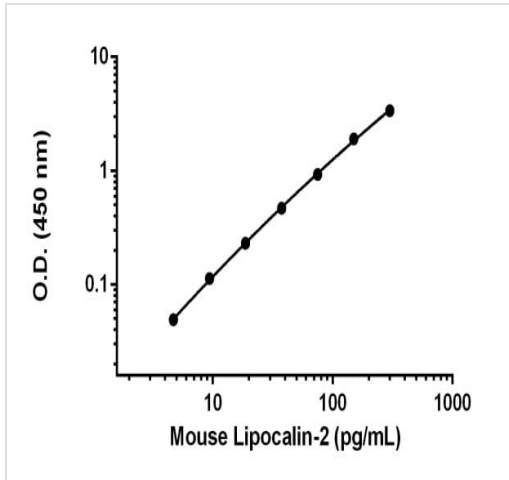
細胞内局在 Secreted. Upon binding to the SLC22A17 (24p3R) receptor, it is internalized.

画像



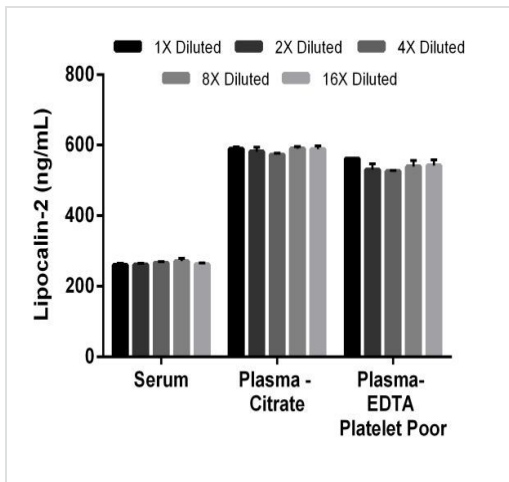
Mouse Lipocalin-2 (NGAL) standard curve comparison data.

Standard curve comparison between mouse Lipocalin-2 (NGAL) SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows a 7-fold increase in sensitivity.



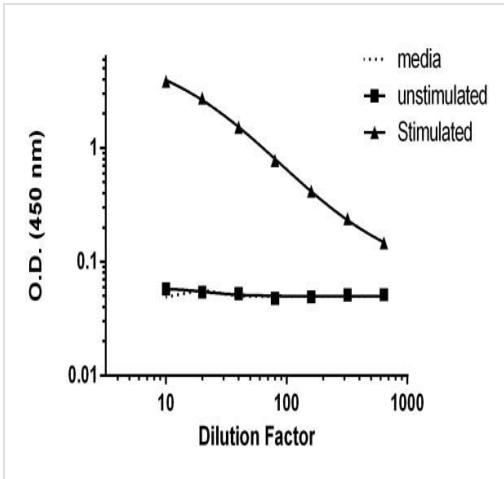
Background-subtracted data values (mean +/- SD) are graphed.

Example of Lipocalin-2 standard curve.



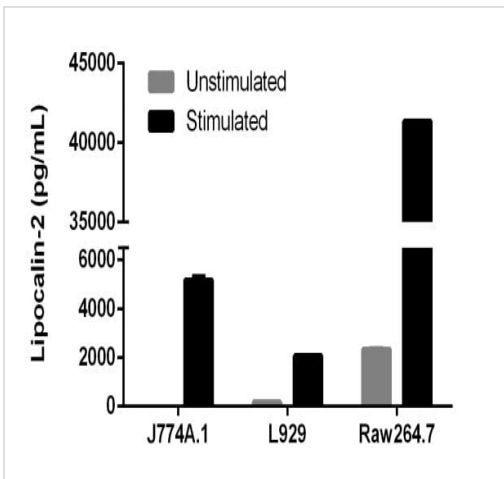
The concentrations of Lipocalin-2 were measured in duplicate and interpolated from the Lipocalin-2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Lipocalin-2 concentration was determined to be 265.2 ng/mL in mouse serum, 583.8 ng/mL in mouse plasma (Citrate), and 535.2 ng/mL in platelet poor mouse plasma (EDTA).

Interpolated concentrations of Lipocalin-2 in mouse serum, plasma (citrate), and platelet poor plasma (EDTA).



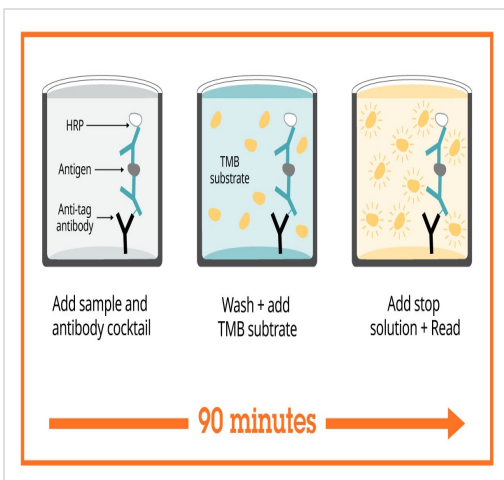
Comparison of secreted Lipocalin-2 in media, unstimulated and PMA/PHA-stimulated J774A.1 cells.

J774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. Raw data from duplicate measurements are plotted (mean +/- SD, n=2).



Comparison of secreted Lipocalin-2 in mouse cell lines with or without stimulation.

L929 and J774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. RAW264.7 were grown in the absence (unstimulated) or presence of LPS (stimulated) for 2 days. Cell Culture supernatant was diluted to within the range of the assay, 5-fold (L929 and J774A.1) or 2,000-fold (RAW264.7). Measured values were interpolated from the Lipocalin-2 Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed. Lipocalin-2 was undetectable in media.



Sandwich ELISA - Mouse Lipocalin-2 ELISA Kit (NGAL) (ab199083)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

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recombinant antibodies



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Consistent and reproducible results



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Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse Lipocalin-2 ELISA Kit
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To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with
SimpleStep ELISA**



Easy to use
Single-wash 90-minute protocol



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Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse Lipocalin-2 ELISA Kit
(NGAL) (ab199083)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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