abcam

Product datasheet

Mouse Galectin 3 ELISA Kit ab203369

Recombinant SimpleStep ELISA

3 References 5 Images

Overview

Product name

Mouse Galectin 3 ELISA Kit

Detection method

Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%	
Serum	5			3.7%	

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			8.9%

Sample type

Cell culture supernatant, Urine, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

2.4 pg/ml

Range

7.81 pg/ml - 500 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Urine	96	94% - 98%
Serum	107	105% - 108%
Cell culture media	94	92% - 97%
Hep Plasma	96	94% - 98%
EDTA Plasma	111	107% - 115%
Cit plasma	108	104% - 111%

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Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Mouse

Does not react with: Goat, Pig

Product overview

Mouse Galectin 3 ELISA Kit (ab203369) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Galectin 3 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Galectin 3 with 2.4 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

Galectin-3 (Gal-3, Galactoside-binding protein, Mac-2 antigen) is in the Galectin family of carbohydrate-binding proteins and is active intracellularly and extracellularly. It is widely expressed, including by fibroblasts and macrophages. Intracellularly, Galectin-3 can function in the nucleus as a pre-mRNA splicing factor and in the cytoplasm it has roles in endocytosis, exocytosis and apoptosis. Extracellularly, Galectin-3 is pro-inflammatory and is involved in innate immunity. Galectin-3 can be monomeric or form higher order homo and hetero oligomers.

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	1 x 96 tests
10X Mouse Galectin-3 Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
Antibody Diluent CPR2	1 x 6ml	1 x 6ml
Mouse Galectin-3 Capture Antibody (Lyophilized)	1 vial	1 vial
Mouse Galectin-3 Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit

Components	1 x 96 tests	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

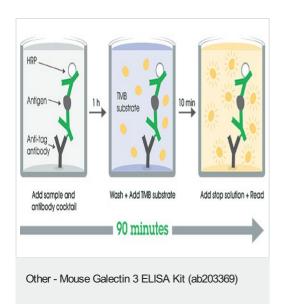
Relevance

Galactose-specific lectin which binds IgE. May mediate with the alpha-3, beta-1 integrin the stimulation by CSPG4 of endothelial cells migration. Together with DMBT1, required for terminal differentiation of columnar epithelial cells during early embryogenesis By similarity. In the nucleus: acts as a pre-mRNA splicing factor. Involved in acute inflammatory responses including neutrophil activation and adhesion, chemoattraction of monocytes macrophages, opsonization of apoptotic neutrophils, and activation of mast cells. Probably forms homo- or heterodimers. Interacts with DMBT1. Forms a complex with the ITGA3, ITGB1 and CSPG4. Interacts with LGALS3BP, LYPD3, CYHR1 and UACA. A major expression is found in the colonic epithelium. It is also abundant in the activated macrophages. Contains 1 galectin domain.

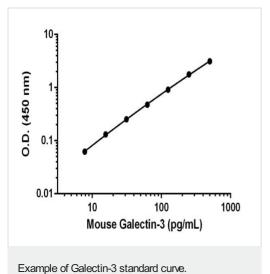
Cellular localization

Cytoplasmic, Nuclear and Secreted

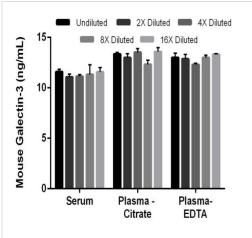
Images



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.

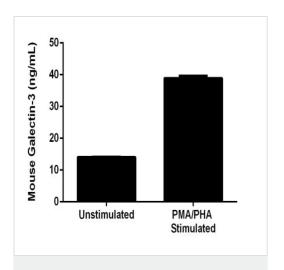


Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of Galectin-3 in mouse serum, plasma (citrate), and plasma (EDTA).

The concentrations of Galectin-3 were measured in duplicate and interpolated from the Galectin-3 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Galectin-3 concentration was determined to be 11.3 ng/mL in mouse serum, 13.2 ng/mL in mouse plasma (Citrate), and 12.9 ng/mL in mouse plasma (EDTA).



J774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. Galectin-3 was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated J774A.1 and cell culture media.

Measured values were interpolated from the Galectin-3 Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed: 14 ng/mL unstimulated, 38.9 ng/mL stimulated, and undetectable in media.

Comparison of secreted Galectin-3 in unstimulated and PMA/PHA-stimulated J774A.1 Cells.



To learn more about the advantages of recombinant antibodies see **here**.

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