abcam

Product datasheet

Mouse Galectin-1 ELISA Kit ab253212

Recombinant SimpleStep ELISA

5 Images

Overview

Product name Mouse Galectin-1 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			2.5%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			6.2%

Sample type Serum, Hep Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 0.17 ng/ml

Range 0.19 ng/ml - 12 ng/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	108	105% - 113%
Hep Plasma	123	114% - 129%
Cit plasma	113	104% - 123%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Mouse, Cow

Product overview Mouse Galectin-1 ELISA Kit (ab253212) is a single-wash 90 min sandwich ELISA designed for

the quantitative measurement of Galectin-1 protein in hep plasma, serum, and cit plasma. It uses

our proprietary SimpleStep ELISA® technology. Quantitate Mouse Galectin-1 with 0.17 ng/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.

Galectin-1, also known as 14 kDa lectin, galaptin, and lectin galactoside-binding soluble 1, is a β -galactoside binding lectin encoded by the gene LGALS1. Galectin-1 is a 134 amino acid non-glycosylated secreted protein that forms a non-covalently linked homodimer. Galectin-1 is expressed in a wide range of tissues and has various intra- and extra-cellular functions, where generally it is a modulator of immune responses. Galectin-1 may act as an autocrine negative growth factor that regulates cell proliferation.

Pre-coated microplate (12 x 8 well strips)

Notes

Platform

Properties

Storage instructions

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

Components	1 x 96 tests
10X Mouse Galectin-1 Capture Antibody	1 x 600µl
10X Mouse Galectin-1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BR	1 x 6ml
Mouse Galectin-1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function

May regulate apoptosis, cell proliferation and cell differentiation. Binds beta-galactoside and a wide array of complex carbohydrates. Inhibits CD45 protein phosphatase activity and therefore the dephosphorylation of Lyn kinase.

Tissue specificity

Expressed in placenta, maternal decidua and fetal membranes. Within placenta, expressed in trophoblasts, stromal cells, villous endothelium, syncytiotrophoblast apical membrane and villous stroma. Within fetal membranes, expressed in amnion, chorioamniotic mesenchyma and chorion (at protein level). Expressed in cardiac, smooth, and skeletal muscle, neurons, thymus, kidney and hematopoietic cells.

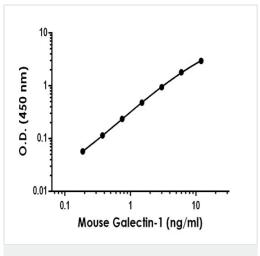
Sequence similarities

Contains 1 galectin domain.

Cellular localization

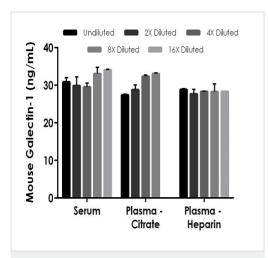
Secreted > extracellular space > extracellular matrix.

Images



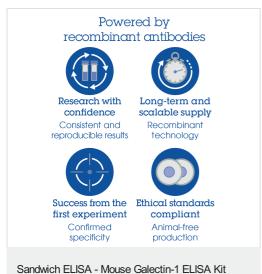
Example of mouse Galectin-1 standard curve in Sample Diluent NS.

The Galectin-1 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native Galectin-1 in mouse serum and plasma samples.

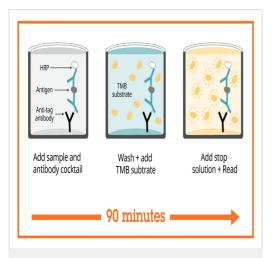
The concentrations of Galectin-1 were measured in duplicates, interpolated from the Galectin-1 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 25%, and plasma (heparin) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Galectin-1 concentration was determined to be 31.5 ng/mL in serum, 30.4 ng/mL in plasma (citrate) and 28.3 ng/mL in plasma (heparin).



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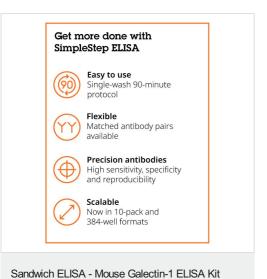
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To learn more about the advantages of recombinant antibodies see **here**.



Sandwich ELISA - Mouse Galectin-1 ELISA Kit

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.



To learn more about the advantages of SimpleStep $\mathsf{ELISA}^{\$}$ kits see **here**.

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