abcam

Product datasheet

Human Galectin-1 ELISA Kit ab260053

Recombinant SimpleStepELISA

1 References 6 Images

Overview

Product name Human Galectin-1 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%	
Serum	8			3.2%	

Inter-assay

Sample	n	Mean	SD	CV%	
Serum	4			5.6%	

Sample type Serum, Cell culture media, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity 0.36 ng/ml

Range 0.8 ng/ml - 50 ng/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	97	88% - 102%
Cell culture media	107	98% - 114%
Hep Plasma	110	102% - 119%
EDTA Plasma	103	94% - 108%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Mouse, Rat, Cow, Human

Product overview

Human Galectin-1 ELISA Kit (ab260053) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Galectin-1 protein in cell culture media, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Galectin-1 with 0.36 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 Human Galectin-1 Capture Antibody	1 x 600µl
10X Human Galectin-1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BR	1 x 6ml
Human 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
	'

Components	1 x 96 tests
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

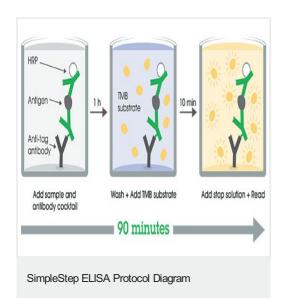
trophoblasts, stromal cells, villous endothelium, syncytiotrophoblast apical membrane and villous stroma. Within fetal membranes, expressed in amnion, chorioamniotic mesenchyma and chorion (at protein level). Expressed in cardiac, smooth, and skeletal muscle, neurons, thymus, kidney and

hematopoietic cells.

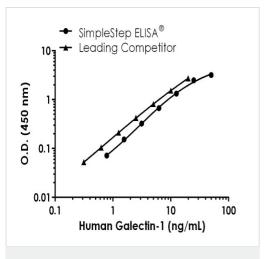
Sequence similaritiesContains 1 galectin domain.

Cellular localization Secreted > extracellular space > extracellular matrix.

Images

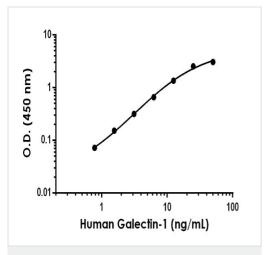


SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



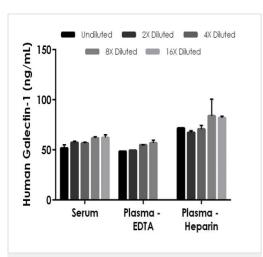
Human Galectin-1 standard curve comparison

Standard Curve comparison between human RANTES SimpleStep ELISA kit and traditional ELISA kit from leading competitor.
SimpleStep ELISA kit shows increased sensitivity.



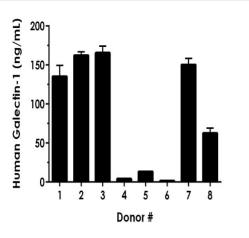
Example of human Galectin-1 standard curve in Sample Diluent NS.

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 human 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 50%, plasma (EDTA) 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 58 ng/mL in serum, 52.5 ng/mL in plasma (EDTA) and 72.8 ng/mL in plasma (heparin).

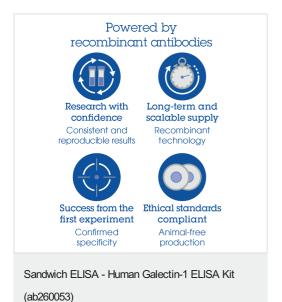


Donor #

Serum from eight individual healthy human donors

was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/-SD, n=2). The mean Galectin-1 concentration was determined to be 99.2 ng/mL with a range of 4.3 –165.5 ng/mL.



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

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