

Product datasheet

Human Galectin-3 ELISA Kit (LGALS3) ab269555

KO VALIDATED Recombinant SimpleStep ELISA

★★★★★ [2 Abreviews](#) [3 References](#) [9 Images](#)

Overview

Product name Human Galectin-3 ELISA Kit (LGALS3)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			3.4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			1.6%

Sample type

Cell culture supernatant, Serum, Cell Lysate, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

13.3 pg/ml

Range

58.8 pg/ml - 2000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	114	109% - 120%
Serum	113	107% - 120%
Cell Lysate	109	103% - 118%
Cell culture media	93	91% - 95%
Hep Plasma	109	107% - 111%

Sample type	Average %	Range
EDTA Plasma	113	111% - 116%
Cit plasma	110	106% - 114%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Product overview

Human Galectin-3 ELISA Kit (LGALS3) (ab269555) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Galectin-3 (LGALS3) protein in cell lysate, serum, cell culture media, cit plasma, edta plasma, hep plasma, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Galectin-3 (LGALS3) with 13.3 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.

Notes

Galectin-3 (Gal-3, Galactoside-binding protein, Mac-2 antigen) is a member of the galectin family of carbohydrate-binding proteins. Galectin-3 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 often pro-inflammatory and is involved in innate immunity. Galectin-3 can be monomeric or form higher order homo and hetero oligomers.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

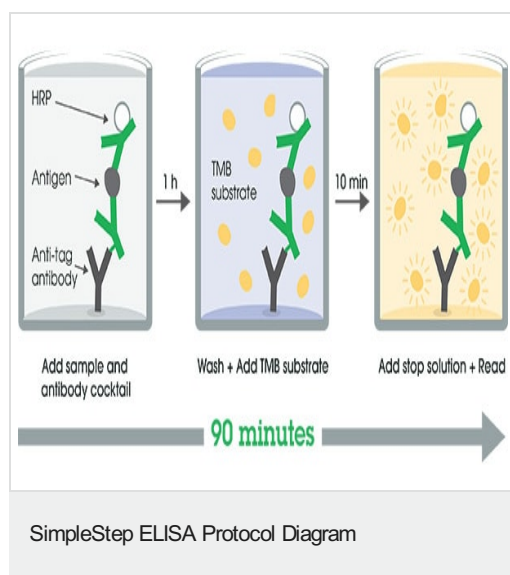
Storage instructions

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

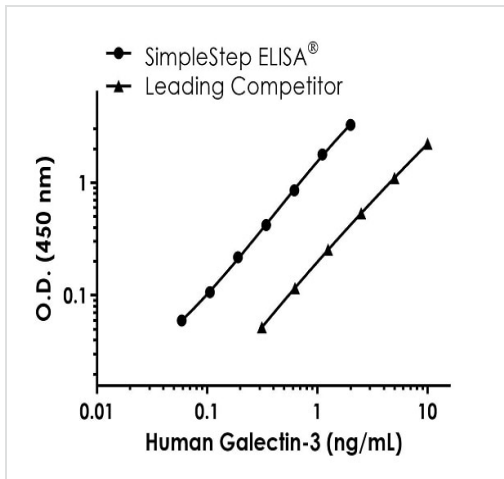
Components	1 x 96 tests
10X Human Galectin-3 (LGALS3) Capture Antibody	1 x 600µl
10X Human Galectin-3 (LGALS3) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Human Galectin-3 (LGALS3) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	2 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	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.
Tissue specificity	A major expression is found in the colonic epithelium. It is also abundant in the activated macrophages.
Sequence similarities	Contains 1 galectin domain.
Cellular localization	Nucleus. Cytoplasmic in adenomas and carcinomas. May be secreted by a non-classical secretory pathway and associate with the cell surface.

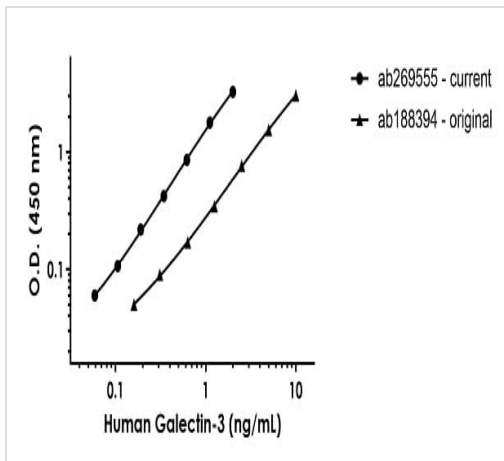
Images



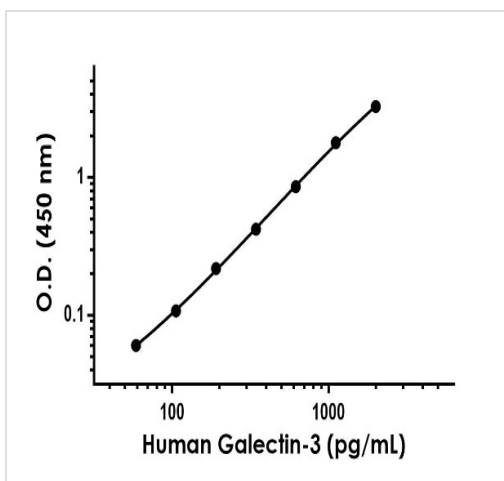
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



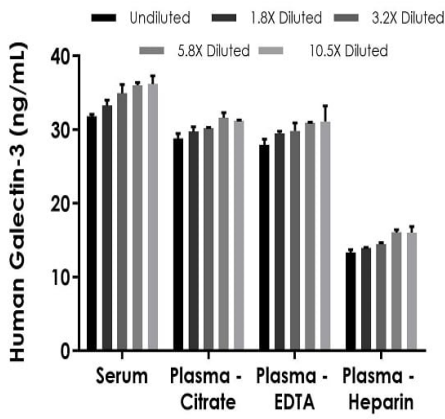
Human Galectin-3 standard curve comparison



Human Galectin-3 standard curve comparison

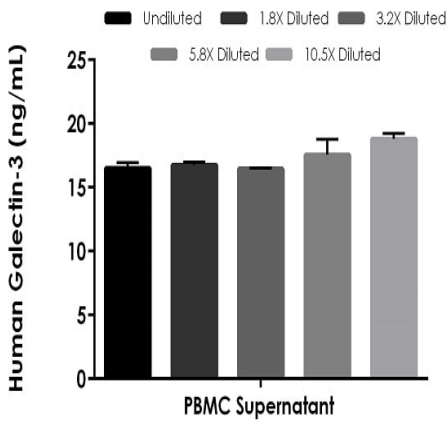


Example of human Galectin-3 standard curve in Sample Diluent NS.



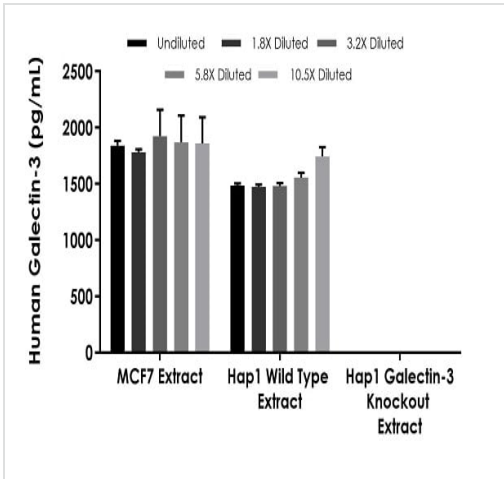
Interpolated concentrations of native Galectin-3 in human serum and plasma samples.

The concentrations of Galectin-3 were measured in duplicates, interpolated from the Galectin-3 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 6%, plasma (citrate) 6%, plasma (EDTA) 6% and plasma (heparin) 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Galectin-3 concentration was determined to be 34.5 ng/mL in neat serum, 30.3 ng/mL in neat plasma (citrate), 29.9 ng/mL in neat plasma (EDTA) and 14.8 ng/mL in neat plasma (heparin).



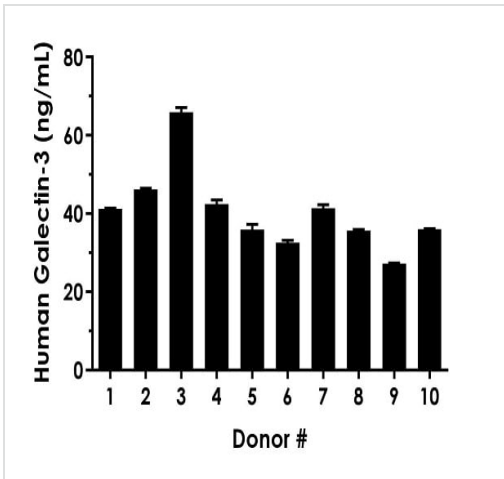
Interpolated concentrations of native Galectin-3 in human PBMC cell culture supernatant samples cultured for 36 hours.

The concentrations of Galectin-3 were measured in duplicates, interpolated from the Galectin-3 standard curves and corrected for sample dilution. Undiluted samples are as follows: PBMC supernatant 5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Galectin-3 concentration was determined to be 17.2 ng/mL in neat PBMC supernatant.



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 1,855 pg/mL in MCF7 extract, 1,548 pg/mL in Hap1 wild type extract and undetectable in Hap1 Galectin-3 knockout extract.

Interpolated concentrations of native Galectin-3 in human MCF7 cell based on a 1.7 µg/mL extract load, Hap1 wild type and Galectin-3 knockout cells based on 200 µg/mL extract load.



Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Galectin-3 concentration was determined to be 40.4 ng/mL with a range of 27.2 – 66.0 ng/mL.

Serum from ten individual healthy human female donors was measured in duplicate.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human Galectin-3 ELISA Kit
(LGALS3) (ab269555)

To learn more about the advantages of recombinant antibodies see [here](#).

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