Datasheet for ABIN921097

LGALS1/Galectin 1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	LGALS1/Galectin 1 (LGALS1)
Binding Specificity:	AA 2-135
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse GALECTIN-1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: A2-E135
Specificity:	Expression system for standard: E.coli Immunogen sequence: A2-E135
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

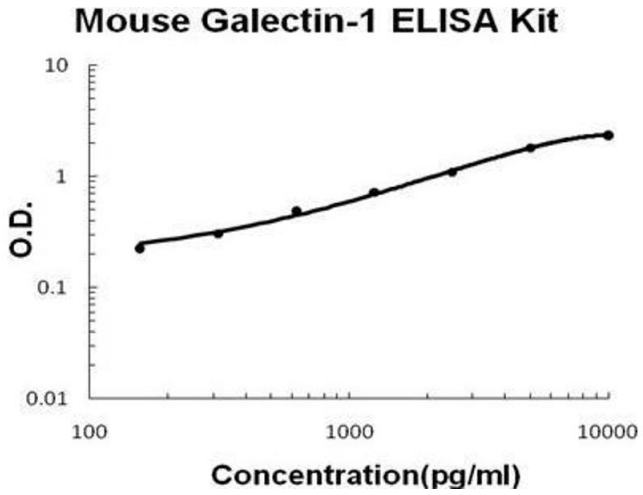
Target:	LGALS1/Galectin 1 (LGALS1)
Alternative Name:	LGALS1 (LGALS1 Products)
Background:	Protein Function: May regulate apoptosis, cell proliferation and cell differentiation. Binds beta-galactoside and a wide array of complex carbohydrates. Inhibits CD45 protein phosphatase activity. Strong inducer of T-cell apoptosis (By similarity). . Background: Galectin-1 is a protein that in humans is encoded by the LGALS1 gene.The galectins are a family of beta-galactoside-binding proteins implicated in modulating cell-cell and cell-matrix interactions. LGALS1 may act as an autocrine negative growth factor that regulates cell proliferation.Baldini et al. stated that the mouse beta-galactoside-binding protein is an autocrine regulator of cell proliferation with a role in the maintenance of G0 and in the control of G2 traverse. They found that galectin-1 was expressed in a subset of slowly dividing subventricular zone astrocytes, which included the neural stem cells. Intraventricular infusion experiments and phenotypic analysis of knockout mice showed that galectin-1 was an endogenous factor that promoted the proliferation of neural stem cells in adult mouse brain. The standard product used in this kit is recombinant mouse GALECTIN-1, Ala2-Glu135, with the molecular mass of 15KDa. Synonyms: Galectin-1,Gal-1,14 kDa lectin,Beta-galactoside-binding lectin L-14-I,Galaptin,Lactose-binding lectin 1,Lectin galactoside-binding soluble 1,S-Lac lectin 1,Lgals1,Gbp, Full Gene Name: Galectin-1 Cellular Localisation: Secreted, extracellular space, extracellular matrix.
Gene ID:	16852
UniProt:	P16045
Pathways:	Carbohydrate Homeostasis

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Contains 1 galectin domain.
Plate:	Pre-coated
Protocol:	mouse Galectin-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for Galectin-1 has been precoated onto 96-well plates. Standards(E.coli, A2-E135) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Galectin-1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse Galectin-1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL mouse Galectin-1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse Galectin-1 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 501, Standard deviation: 22.04, CV(%): 4.4 • Sample 2: n=16, Mean(pg/ml): 3235, Standard deviation: 148.8, CV(%): 4.6 • Sample 3: n=16, Mean(pg/ml): 5618, Standard deviation: 309, CV(%): 5.5, • Sample 1: n=24, Mean(pg/ml): 521, Standard deviation: 30.22, CV(%): 5.8 • Sample 2: n=24, Mean(pg/ml): 3547, Standard deviation: 223.5, CV(%): 6.3 • Sample 3: n=24, Mean(pg/ml): 5296, Standard deviation: 397.2, CV(%): 7.5
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Mouse Galectin-1 PicoKine ELISA Kit standard curve