

Datasheet for ABIN411316

**Laminin ELISA Kit**[1 Image](#)[1 Publication](#)[Go to Product page](#)

## Overview

Quantity:	96 tests
Target:	Laminin (LN)
Reactivity:	Rat
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 Rat Laminin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	from rat sarcoma basement membrane
Specificity:	Expression system for standard: from rat sarcoma basement membrane
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/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

## Product Details

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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

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Target: Laminin (LN)

Alternative Name: Laminin ([LN Products](#))

Background: Protein Function: Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components.

Background: Laminin is a large basement membrane glycoprotein composed of three subunits designated the A, B1, and B2. Laminin has diverse biological functions, which include stimulating epithelial cell growth and differentiation. The nucleotide sequence of human laminin A chain has an open reading frame encoding 3075-amino acids. The human laminin A chain is at locus 18p11.3. The nucleotide sequence of the human laminin B1 reveals a 5358-base pair open reading frame that potentially codes for 1786 amino acids, including 20 amino acids of a presumptive signal peptide. The gene for the human laminin-B1 chain has been localized to chromosome 7, band q31. The B2 chain consists of six distinct domains, including two domains with alpha-helical, coiled-coil structures, two domains with cysteine-rich homologous repeats, and two globular domains. The amino acid sequences of the B2 and B1 chains demonstrate considerable homology. The human laminin B2 chain gene maps to the long arm of chromosome 1 in the band q31.

Synonyms: Laminin subunit beta-2,Laminin chain B3,Laminin-11 subunit beta,Laminin-14 subunit beta,Laminin-15 subunit beta,Laminin-3 subunit beta,Laminin-4 subunit beta,Laminin-7 subunit beta,Laminin-9 subunit beta,S-laminin subunit beta,S-LAM beta,Lamb2,

Full Gene Name: Laminin subunit beta-2

Cellular Localisation: Secreted, extracellular space, extracellular matrix, basement membrane.

Gene ID: 307582

UniProt: [P15800](#)

## Application Details

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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 13 laminin EGF-like domains.

## Application Details

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Tissue Specificity: Found in the basement membranes (major component). S-laminin is concentrated in the synaptic cleft of the neuromuscular junction.

Plate: Pre-coated

Protocol: rat Laminin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Laminin has been precoated onto 96-well plates. Standards(from rat sarcoma basement membrane) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Laminin 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 rat Laminin 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 rat Laminin 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 rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each rat Laminin standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 1476, Standard deviation: 88.56, CV(%): 6
- Sample 2: n=16, Mean(pg/ml): 4258, Standard deviation: 234.2, CV(%): 5.5
- Sample 3: n=16, Mean(pg/ml): 6993, Standard deviation: 342.7, CV(%): 4.9,
- Sample 1: n=24, Mean(pg/ml): 1689, Standard deviation: 120, CV(%): 7.1
- Sample 2: n=24, Mean(pg/ml): 4437, Standard deviation: 275.1, CV(%): 6.2
- Sample 3: n=24, Mean(pg/ml): 7147, Standard deviation: 407.4, CV(%): 5.7

Restrictions: For Research Use only

## Handling

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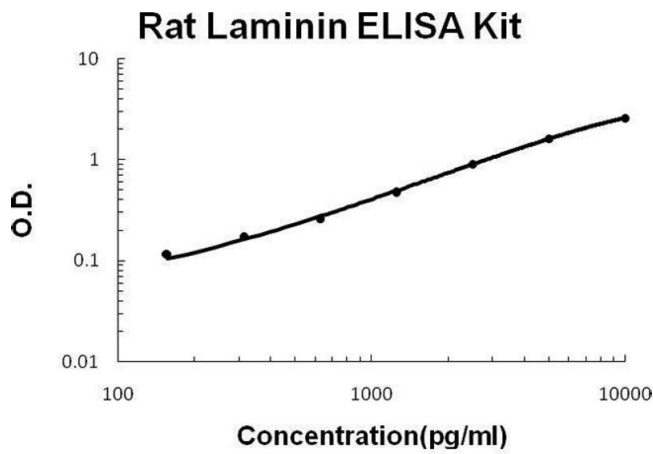
Handling Advice: Avoid multiple freeze-thaw cycles.

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

Product cited in: Lin, Li, Su: "Three dimensional chitosan scaffolds influence the extra cellular matrix expression in Schwann cells." in: **Materials science & engineering. C, Materials for biological applications**, Vol. 42, pp. 474-8, (2014) ([PubMed](#)).



#### ELISA

**Image 1.** Rat Laminin PicoKine ELISA Kit standard curve