Laminin Gamma 2 (LAMgamma2) ELISA Kit for Bovine

PRODUCT OVERVIEW

Product Name	Laminin Gamma 2 (LAMgamma2), ELISA Kit
Full Product Name	Bovine Laminin Gamma 2 ELISA Kit
Product Gene Name	LAMgamma2 elisa kit
Species Reactivity	Bovine
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	130,976 Da
OMIM	150292
3D Structure	ModBase 3D Structure for Q13753
Related Product Information for LAMgamma2 elisa kit	MBS067185 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Laminin Gamma 2 (LAMgamma2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing LAMgamma2. The ELISA analytical biochemical technique of the MBS067185 kit is based on LAMgamma2 antibody-LAMgamma2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect LAMgamma2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, LAMgamma2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of LAMgamma2 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LAMgamma2. It may not necessarily be applicable to this product.

NCBI GI #	119611552
NCBI GeneID	3918
NCBI Accession #	EAW91146.1
UniProt Primary Accession #	Q13753
UniProt Secondary Accession #	Q02536; Q02537; Q13752; Q14941; Q14DF7; Q5VYE8
UniProt Related Accession #	Q13753
NCBI Official Full Name	laminin, gamma 2, isoform CRA_a
NCBI Official Synonym Full Names	laminin, gamma 2
NCBI Official Symbol	LAMC2
NCBI Official Synonym Symbols	B2T; CSF; EBR2; BM600; EBR2A; LAMB2T; LAMNB2
UniProt Protein Name	Laminin subunit gamma-2
UniProt Synonym Protein Names	Cell-scattering factor 140 kDa subunit; CSF 140 kDa subunit; Epiligrin subunit gamma; Kalinin subunit gamma; Kalinin/nicein/epiligrin 100 kDa subunit; Ladsin 140 kDa subunit; Laminin B2t chain; Laminin-5 subunit gamma; Large adhesive scatter factor 140 kDa subunit; Nicein subunit gamma

UniProt Gene Name	LAMC2
UniProt Synonym Gene Names	LAMB2T; LAMNB2; CSF 140 kDa subunit
UniProt Entry Name	LAMC2_HUMAN
NCBI Protein Information	laminin subunit gamma-2; BM600-100kDa; laminin B2t chain; CSF 140 kDa subunit; nicein subunit gamma; kalinin subunit gamma; ladsin 140 kDa subunit; epiligrin subunit gamma; cell-scattering factor 140 kDa subunit; large adhesive scatter factor 140 kDa subunit
NCBI Summary for LAMgamma2	Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins, composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively), have a cruciform structure consisting of 3 short arms, each formed by a different chain, and a long arm composed of all 3 chains. Each laminin chain is a multidomain protein encoded by a distinct gene. Several isoforms of each chain have been described. Different alpha, beta and gamma chain isomers combine to give rise to different heterotrimeric laminin isoforms which are designated by Arabic numerals in the order of their discovery, i.e. alpha1beta1gamma1 heterotrimer is laminin 1. The biological functions of the different chains and trimer molecules are largely unknown, but some of the chains have been shown to differ with respect to their tissue distribution, presumably reflecting diverse functions in vivo. This gene encodes the gamma chain isoform laminin, gamma 2. The gamma 2 chain, formerly thought to be a truncated version of beta chain (B2t), is highly homologous to the gamma 1 chain; however, it lacks domain VI, and domains V, IV and III are shorter. It is expressed in several fetal tissues but differently from gamma 1, and is specifically localized to epithelial cells in skin, lung and kidney. The gamma 2 chain together with alpha 3 and beta 3 chains constitute laminin 5 (earlier known as kalinin), which is an integral part of the anchoring filaments that connect epithelial cells to the underlying basement membrane. The epithelium-specific expression of the gamma 2 chain implied its role as an epithelium attachment molecule, and mutations in this gene have been associated with junctional epidermolysis bullosa, a skin disease characterized by blisters due to disruption of the epidermal-dermal junction. Two transcript variants resulting from alternative splicing of the 3' terminal exon, and encoding different isoforms of gamma 2 chain, have been described. The two variants are differentially expressed in embryonic tissues, however, the biological significance of the two forms is not known. Transcript variants utilizing alternative polyA_signal have also been noted in literature. [provided by RefSeq, Aug 2011]
UniProt Comments for LAMgamma2	LAMC2: 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. Ladsin exerts cell- scattering activity toward a wide variety of cells, including epithelial, endothelial, and fibroblastic cells. Defects in LAMC2 are a cause of epidermolysis bullosa junctional Herlitz type (H-JEB); also known as junctional epidermolysis bullosa Herlitz-Pearson type. JEB defines a group of blistering skin diseases characterized by tissue separation which occurs within the dermo-epidermal basement membrane. H-JEB is a severe, infantile and lethal form. Death occurs usually within the first six months of life. Occasionally, children survive to teens. H-JEB is marked by bullous lesions at birth and extensive denudation of skin and mucous membranes that may be hemorrhagic. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; Secreted, signal peptide; Secreted; Extracellular matrix Chromosomal Location of Human Ortholog: 1q25-q31 Cellular Component: extracellular space; laminin-5 complex; laminin-2 complex; membrane; perinuclear region of cytoplasm; extracellular region; cell cortex Molecular Function: heparin binding Biological Process: extracellular matrix disassembly; epidermis development; hemidesmosome assembly; extracellular matrix organization and biogenesis; cell adhesion Disease: Epidermolysis Bullosa, Junctional, Non-herlitz Type; Epidermolysis Bullosa, Junctional, Herlitz Type
Research Articles on LAMgamma2	**1.** The active site of gamma2pf to the N-terminal epidermal growth factor-like repeat.
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