

Recombinant Human LAMC2 Protein, His-tagged

Cat. No. LAMC2-234H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LAMC2(Cys28~Cys196) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Cys28~Cys196
Description	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

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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.

Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Molecular Mass	22.3kDa
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	> 95%
Applications	Positive Control; Immunogen; SDS-PAGE; WB. If bio-activity of the protein is needed, please check active protein
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is

less than 5% within the expiration date under appropriate storage condition.

Storage

Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.

Reconstitution

Reconstitute in PBS or others

GENE INFORMATION

Gene Name

LAMC2 laminin, gamma 2 [Homo sapiens]

Official Symbol

LAMC2

Synonyms

LAMC2; laminin, gamma 2; EBR2, EBR2A, LAMB2T, laminin, gamma 2 (nicein (100kD), kalinin (105kD), BM600 (100kD), Herlitz junctional epidermolysis bullosa) , LAMNB2; laminin subunit gamma-2; BM600 100kDa; kalinin 105kDa; nicein 100kDa; 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; B2T; CSF; EBR2; BM600; EBR2A; LAMB2T; LAMNB2; MGC138491; MGC141938;

Gene ID

3918

mRNA Refseq

NM_005562

Protein Refseq

NP_005553

MIM

150292

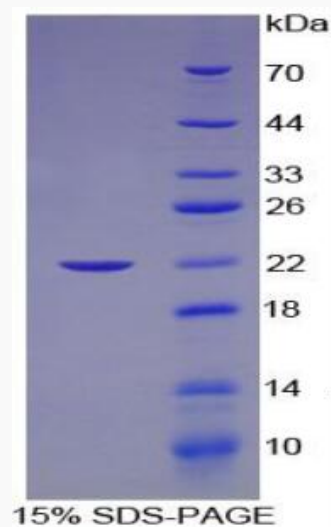
UniProt ID

Q13753

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