Recombinant Human LAMC1 protein, His-tagged

Cat. No. LAMC1-19H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LAMC1(Ile521~Pro772) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Ile521~Pro772
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 1. The gamma 1 chain, formerly thought to be a beta chain,

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	contains structural domains similar to beta chains, however, lacks the short alpha region separating domains I and II. The structural organization of this gene also suggested that it had diverged considerably from the beta chain genes. Embryos of transgenic mice in which both alleles of the gamma 1 chain gene were inactivated by homologous recombination, lacked basement membranes, indicating that laminin, gamma 1 chain is necessary for laminin heterotrimer assembly. It has been inferred by analogy with the strikingly similar 3' UTR sequence in mouse laminin gamma 1 cDNA, that multiple polyadenylation sites are utilized in human to generate the 2 different sized mRNAs (5.5 and 7.5 kb) seen on Northern analysis.
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Molecular Mass	29.0kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method)
Purity	> 90%
Applications	SDS-PAGE; WB; ELISA; IP
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.

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GENE INFORMATION

Gene Name	LAMC1 laminin, gamma 1 (formerly LAMB2) [Homo sapiens]
Official Symbol	LAMC1
Synonyms	LAMC1; laminin, gamma 1 (formerly LAMB2); LAMB2; laminin subunit gamma-1; S-LAM gamma; laminin B2 chain; S-laminin subunit gamma; laminin-2 subunit gamma; laminin-3 subunit gamma; laminin-4 subunit gamma; laminin-6 subunit gamma; laminin-7 subunit gamma; laminin-8 subunit gamma; laminin-9 subunit gamma; laminin-10 subunit gamma; laminin-11 subunit gamma; MGC87297;
Gene ID	3915
mRNA Refseq	NM_002293
Protein Refseq	NP_002284
MIM	150290
UniProt ID	P11047
Chromosome Location	1q31
Pathway	Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem;

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Function	extracellular matrix structural constituent; glycosphingolipid binding;

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