

Recombinant Human LAMA4 cell lysate

Cat. No. LAMA4-967HCL Lot. No. (See product label)

SPECIFICATION

Species

Human

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 are composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively) and they form 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 alpha chain isoform laminin, alpha 4. The domain structure of alpha 4 is similar to that of alpha 3, both of which resemble truncated versions of alpha 1 and alpha 2, in that approximately 1,200 residues at the N-terminus (domains IV, V and VI) have been lost. Laminin, alpha 4 contains the C-terminal G domain which distinguishes all alpha chains from the beta and gamma chains. The RNA analysis from adult and fetal tissues revealed developmental regulation of expression, however, the exact function of laminin, alpha 4 is not known. Tissue-specific utilization of alternative polyA-signal has been described in literature. Alternative splicing results in multiple transcript

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variants encoding distinct isoforms.

Size 100 ul

Storage Buffer 1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)

Applications Western Blot;

GENE INFORMATION

Gene Name [LAMA4 laminin, alpha 4 \[Homo sapiens \]](#)

Official Symbol LAMA4

Synonyms LAMA4; laminin, alpha 4; laminin subunit alpha-4; LAMA3; laminin alpha 4 chain; LAMA4*-1; DKFZp686D23145;

Gene ID [3910](#)

mRNA Refseq [NM_001105206](#)

Protein Refseq [NP_001098676](#)

MIM [600133](#)

UniProt ID [Q16363](#)

Chromosome Location 6q21

Pathway African trypanosomiasis, organism-specific biosystem; African trypanosomiasis,

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conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem; FOXM1 transcription factor network, organism-specific biosystem;

Function

extracellular matrix structural constituent; receptor binding;

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