



Anti-LAMC1 (full length) polyclonal antibody (DPAB-DC1823)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen 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, 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.

Immunogen

LAMC1 (AAH15586, 1 a.a. ~ 38 a.a) full-length recombinant protein with GST tag. The sequence is MNKRRTSHRIWKNKLPEYMRPDKGPVTKLWRSPAWLS

Source/Host

Mouse

Species Reactivity

Human

Conjugate	Unconjugated
Applications	WB (Recombinant protein), ELISA,
Size	50 µl
Buffer	50 % glycerol
Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	LAMC1 laminin, gamma 1 (formerly LAMB2) [Homo sapiens (human)]
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;
Entrez Gene ID	3915
Protein Refseq	NP_002284
UniProt ID	P11047
Chromosome Location	1q31
Pathway	Alpha6-Beta4 Integrin Signaling Pathway; Amoebiasis; Degradation of the extracellular matrix; ECM proteoglycans
Function	extracellular matrix structural constituent; glycosphingolipid binding;