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LAMC1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant LAMC1.
Catalog # AT2671a

Product Information

Application	WB, E
Primary Accession	P11047
Other Accession	BC015586
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a kappa
Clone Names	2E6-B4
Calculated MW	177603

Additional Information

Gene ID	3915
Other Names	Laminin subunit gamma-1, Laminin B2 chain, Laminin-1 subunit gamma, Laminin-10 subunit gamma, Laminin-11 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, S-laminin subunit gamma, S-LAM gamma, LAMC1, LAMB2
Target/Specificity	LAMC1 (AAH15586, 1 a.a. ~ 38 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	LAMC1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

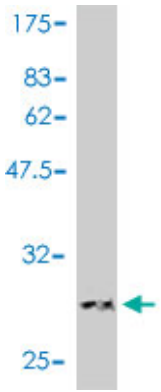
Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins are 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 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.

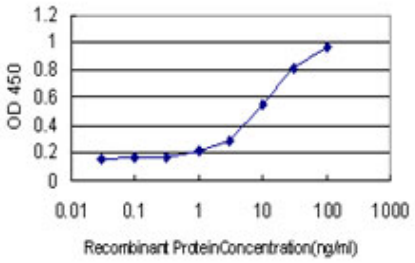
References

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet, 2010 Jul 8. PMID 20628624.Is laminin gamma-1 a candidate gene for advanced pelvic organ prolapse? Chen C, et al. Am J Obstet Gynecol, 2010 May. PMID 20223449.Sequential use of transcriptional profiling, expression quantitative trait mapping, and gene association implicates MMP20 in human kidney aging. Wheeler HE, et al. PLoS Genet, 2009 Oct. PMID 19834535.Laminin-111 protein therapy prevents muscle disease in the mdx mouse model for Duchenne muscular dystrophy. Rooney JE, et al. Proc Natl Acad Sci U S A, 2009 May 12. PMID 19416897.Laminin isoforms containing the gamma3 chain are unable to bind to integrins due to the absence of the glutamic acid residue conserved in the C-terminal regions of the gamma1 and gamma2 chains. Ido H, et al. J Biol Chem, 2008 Oct 17. PMID 18697739.

Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (29.92 KDa) .



Detection limit for recombinant GST tagged LAMC1 is approximately 0.3ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.