

Product datasheet for RC217480

Laminin beta 2 (LAMB2) (NM_002292) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Laminin beta 2 (LAMB2) (NM_002292) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Laminin beta 2
Synonyms:	LAMS; NPHS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217480 representing NM_002292 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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Protein Sequence:

>RC217480 representing NM_002292
Red=Cloning site Green=Tags(s)

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Chromatograms:

https://cdn.origene.com/chromatograms/mk6685_h08.zip

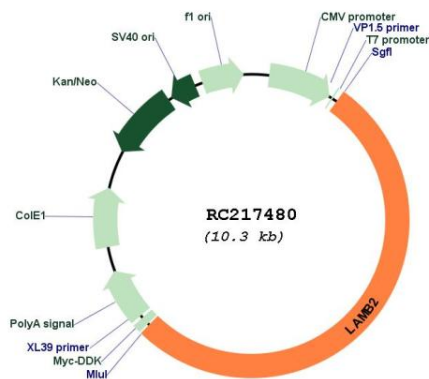
Restriction Sites:

SgfI-MluI

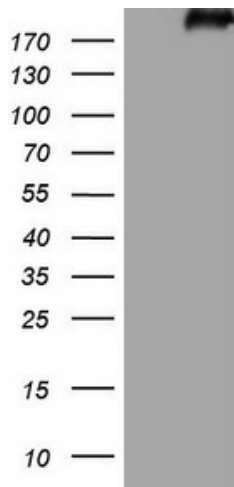
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_002292.2 , NP_002283.2
RefSeq Size:	5815 bp
RefSeq ORF:	5397 bp
Locus ID:	3913
UniProt ID:	P55268
Cytogenetics:	3p21.31
Domains:	EGF_Lam, laminin_Nterm
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	ECM-receptor interaction, Focal adhesion, Pathways in cancer, Small cell lung cancer
MW:	196 kDa

Gene Summary:

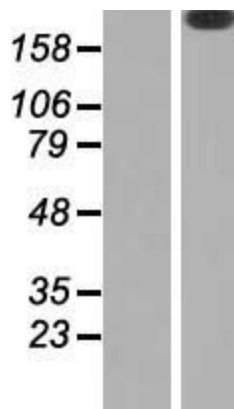
Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins, composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively), 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 beta chain isoform laminin, beta 2. The beta 2 chain contains the 7 structural domains typical of beta chains of laminin, including the short alpha region. However, unlike beta 1 chain, beta 2 has a more restricted tissue distribution. It is enriched in the basement membrane of muscles at the neuromuscular junctions, kidney glomerulus and vascular smooth muscle. Transgenic mice in which the beta 2 chain gene was inactivated by homologous recombination, showed defects in the maturation of neuromuscular junctions and impairment of glomerular filtration. Alternative splicing involving a non consensus 5' splice site (gc) in the 5' UTR of this gene has been reported. It was suggested that inefficient splicing of this first intron, which does not change the protein sequence, results in a greater abundance of the unspliced form of the transcript than the spliced form. The full-length nature of the spliced transcript is not known. [provided by RefSeq, Aug 2011]

Product images:

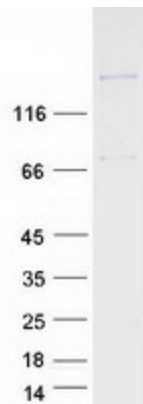
Circular map for RC217480



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LAMB2 (Cat# RC217480, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LAMB2 (Cat# [TA808897])(1:200). Positive lysates [LY419412] (100ug) and [LC419412] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419412]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217480 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LAMB2 protein (Cat# [TP317480]). The protein was produced from HEK293T cells transfected with LAMB2 cDNA clone (Cat# RC217480) using MegaTran 2.0 (Cat# [TT210002]).