

Recombinant Human LAMB2 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. LAMB2-3172H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	LAMB2 MS Standard C13 and N15-labeled recombinant protein (NP_002283) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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), 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,

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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 nat

Molecular Mass 196 kDa

AA Sequence

MELTSRERGRGQPLPWELRLGLLLSVLAATLAQAPAPDVPGC SRGSCYPATGDLLV
GRADRLTASSTCGLNGPQPYCIVSHLQDEKKCFLCDSRRPFSARDNPHSHRIQNVV
TSFAPQRRAAWWQSENGIPAVTIQLDLEAEFHFTHLIMTFKTRPAAMLVERSADFG
RTWHVYRYFSYDCGADFPGVPLAPPRHWDDVVCESRYSEIEPSTEGEVIYRVLDPA
IIPDPYSSRIQNLLKITNLRVNLTRLHTLGDNLLDPRREIREKYYYALYELVVRGNCF
CYGHASECAPAPGAPAHAEGBMVHGACICKHNTRGLNCEQCQDFYRDL PWRPAED
GHSHACRKCECHGHTHSCHFDMAVYLASGNVSGGVCDGCGHNTAGRHCELCRPF
FYRDPTKDLRDPVCRSCDCDPMGSQDGGRCDSHDDPALGLVSGQCRCKEHVVG
TRCQQCRDGGFFGLSISDRLGCRRCQCNARGTVPGSTPCDPNSGSCYCKRLVTGRG
CDRCLPGHWGLSHDLLGCRPCDCDVGGALDPQCDEGTGQCHCRQH MVGRRCEQ
VQPGYFRPFLDHLIWEAEDTRGQVLDVVERLVTPGETPSWTGSGFVRLQEGQTLEF
LVASVPKAMDYDLLLRLEPQVPEQWAELELIVQRPGVPVPAHSLCGHLVPKDDRIQGT
LQPHARYLIFPNPVCLEPGISYKLHLKLVRTGGSAQPETPYSGPGLLIDSLVLLPRVLV
LEMFSGGDAAALERQATFERYQCHEEGLVPSKTSPSEACAPLLISLSTLIYNGALPC
QCNPQGSLSSECNPHGGQCLCKPGVVGRRCDL CAPGYYGFGPTGCQACQCSHE
GALSSLCEKTS GQCLCRTGAFGLRCDRCQRGQWGFPSRCPCVCNGHADECNTHT
GACLGCRDHTGGEHCERCIAGFHGD PRLPYGGQCRPCPCPEGPGSQRHFATSCH
QDEYSQQIVCHCRAGYTGLRCEACAPGHFGDPSRPGGRCQLCECSGNIDPMDPDA

CDPHTGQCLRCLHHTEGPHCAHCKPGFHHGQAARQSCHRCTCNLLGTNPQQCPSP
DQCHCDPSSGQCPCLPNVQGPSCDRCAPNFWNLTSGHGQCPCACHPSRARGPT
CNEFTGQCHCRAGFGGRTCSECQELHWGDPGLQCHACDCDSRGIDTPQCHRFTG
HCSCRPGVSGVRCDQCARAFSGIFPACHPCHACFGDWDRVVQDLAARTQRLEQR
AQELQQTGVLGAFESSFWHMQEKLQIVQGIVGARNTSAASTAQLVEATEELRREIGE
ATEHLTQLEADLTDVQDENFNANHALSGLERDRLALNLTLRQLDQHLDLLKHSNFLG
AYDSIRHAHSQSAEAERRANTSALAVPSPVSNASARHRTEALMDAQKEDFNSKHM
ANQRALGKLSAHTHTLSLTDINELVCGAPGDAPCATSPCGGAGCRDEDGQPRCGG
LSCNGAAATADLALGRARHTQAEQALAEAGGSILSRVAETRRQASEAQQRAQAAL
DKANASRGQVEQANQELQELIQSVKDFLNQEGADPDSIEMVATRVLELSIPASAEQI
QHLAGAIAERVRLADVDAILARTVGDVRRAEQLLQDARRARSWAEDEKQKAETVQ
AALEEAQRAQGIAQGAIRGAVADTRDTEQTLYQVQERMAGAERALSSAGERARQLD
ALLEALKLKRAAGNSLAATAEETAGSAQGRAQEAQQLLRGPLGDQYQTVKALAERK
AQGVLAQAQARAEQLRDEARDLLQAAQDKLQRLQELEGTYEENERALESKAAQLDGL
EARMRSVLOAINLOVOIYNTCOTRTRPLEOKLISEEDLAANDILDYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	LAMB2 laminin subunit beta 2 [Homo sapiens (human)]
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Official Symbol	LAMB2
Synonyms	LAMB2; laminin, beta 2 (laminin S); LAMS; laminin subunit beta-2; laminin S; S-LAM beta; laminin B1s chain; S-laminin subunit beta; NPHS5;
Gene ID	3913
mRNA Refseq	NM_002292
Protein Refseq	NP_002283
MIM	150325
UniProt ID	P55268
SDS-PAGE	