Recombinant Human LAMC3 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. LAMC3-3589H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	LAMC3 MS Standard C13 and N15-labeled recombinant protein (NP_006050) 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 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 3. The gamma 3 chain is most similar to the gamma 1 chain, and contains all the 6 domains expected of the gamma chain. It is a component of

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	laminin 12. The gamma 3 chain is broadly expressed in skin, heart, lung, and the reproductive tracts. In skin, it is seen within the basement membrane of the dermal-epidermal junction at points of nerve penetration. Gamma 3 is also a prominent element of the apical surface of ciliated epithelial cells of lung, oviduct, epididymis, ductus deferens, and seminiferous tubules. The distribution of gamma 3-containing laminins along ciliated epithelial surfaces suggests that the apical laminins are important in the morphogenesis and structural stability of the ciliated processes of these cells.
Molecular Mass	171.23 kDa
AA Sequence	MAAAALLLGLALLAPRAAGAGMGACYDGAGRPQRCLPVFENAAFGRLAQASHTCG SPPEDFCPHVGAAGAGAHCQRCDAADPQRHHNASYLTDFHSQDESTWWQSPSM AFGVQYPTSVNITLRLGKAYEITYVRLKFHTSRPESFAIYKRSRADGPWEPYQFYSAS CQKTYGRPEGQYLRPGEDERVAFCTSEFSDISPLSGGNVAFSTLEGRPSAYNFEES PGLQEWVTSTELLISLDRLNTFGDDIFKDPKVLQSYYYAVSDFSVGGRCKCNGHASE CGPDVAGQLACRCQHNTTGTDCERCLPFFQDRPWARGTAEAAHECLPCNCSGRS EECTFDRELFRSTGHGGRCHHCRDHTAGPHCERCQENFYHWDPRMPCQPCDCQ SAGSLHLQCDDTGTCACKPTVTGWKCDRCLPGFHSLSEGGCRPCTCNPAGSLDTC DPRSGRCPCKENVEGNLCDRCRPGTFNLQPHNPAGCSSCFCYGHSKVCASTAQF QVHHILSDFHQGAEGWWARSVGGSEHPPQWSPNGVLLSPEDEEELTAPEKFLGDQ RFSYGQPLILTFRVPPGDSPLPVQLRLEGTGLALSLRHSSLSGPQDAGHPREVELRF HLQETSEDVAPPLPPFHFQRLLANLTSLRLRVSPGPSPAGPVFLTEVRLTSARPGLS PPASWVEICSCPTGYTGQFCESCAPGYKREMPQGGPYASCVPCTCNQHGTCDPN TGICVCSHHTEGPSCERCLPGFYGNPFAGQADDCQPCPCPGQSACTTIPESREVVC THCPPGQRGRRCEVCDDGFFGDPLGLFGHPQPCHQCQCSGNVDPNAVGNCDPLS GHCLRCLHNTTGDHCEHCQEGFYGSALAPRPADKCMPCSCHPQGSVSEQMPCDP VTGQCSCLPHVTARDCSRCYPGFFDLQPGRGCRSCKCHPLGSQEDQCHPKTGQC TCRPGVTGQACDRCQLGFFGFSIKGCRACRCSPLGAASAQCHENGTCVCRPGFEG YKCDRCHDNFFLTADGTHCQQCPSCYALVKEEAAKLKARLTLTEGWLQGSDCGSP

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	WGPLDILLGEAPRGDVYQGHHLLPGAREAFLEQMMSLEGAVKAAREQLQRLNKGA RCAQAGSQKTCTQLADLEAVLESSEEEILHAAAILASLEIPQEGPSQPTKWSHLATEA RALARSHRDTATKIAATAWRALLASNTSYALLWNLLEGRVALETQRDLEDRYQEVQ AAQKALRTAVAEVLPEAESVLATVQQVGADTAPYLALLASPGALPQKSRAEDLGLKA KALEKTVASWQHMATEAARTLQTAAQATLRQTEPLTKLHQEARAALTQASSSVQAA TVTVMGARTLLADLEGMKLQFPRPKDQAALQRKADSVSDRLLADTRKKTKQAERML GNAAPLSSSAKKKGREAEVLAKDSAKLAKALLRERKQAHRRASRLTSQTQATLQQA SQQVLASEARRQELEEAERVGAGLSEMEQQIRESRISLEKDIETLSELLARLGSLDTH QAPAQALNETQWALERLRLQLGSPGSLQRKLSLLEQESQQQELQIQGFESDLAEIR ADKQNLEAILHSLPENCASWQTRTRPLEQKLISEEDLAANDILDYKDDDDKV
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	LAMC3 laminin subunit gamma 3 [Homo sapiens (human)]
Official Symbol	LAMC3
Synonyms	LAMC3; laminin subunit gamma 3; OCCM; laminin subunit gamma-3; laminin, gamma 3; laminin-12 subunit gamma; laminin-14 subunit gamma; laminin-15 subunit gamma

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Gene ID	10319
mRNA Refseq	NM_006059
Protein Refseq	NP_006050
MIM	604349
UniProt ID	Q9Y6N6

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