

## Human LAMC1 Knockdown Cell Lysate

**Cat. No.** LAMC1-362HKCL    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Product Overview</b> | WB-validated LAMC1 Knockdown HeLa Cell Lysate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | HeLa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | <p>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</p> |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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.

|                         |                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>             | Cell-Tissue Lysis buffer                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | 178 kDa                                                                                                                                                                                                                                                                          |
| <b>Notes</b>            | Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins. |
| <b>Storage</b>          | Store at -20 centigrade for two years.                                                                                                                                                                                                                                           |
| <b>Concentration</b>    | Lot-specific                                                                                                                                                                                                                                                                     |
| <b>Shipping</b>         | Blue Ice                                                                                                                                                                                                                                                                         |
| <b>Components</b>       | 1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg LAMC1 KD HeLa cell lysate                                                                                                                                                                                                  |
| <b>Protein Families</b> | Druggable Genome, Secreted Protein                                                                                                                                                                                                                                               |
| <b>Protein Pathways</b> | ECM-receptor interaction, Focal adhesion, Pathways in cancer, Prion diseases, Small cell lung cancer                                                                                                                                                                             |
| <b>Lysate QC</b>        | RT-qPCR; Western Blotting (WB)                                                                                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | LAMC1 laminin, gamma 1 (formerly LAMB2) [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                               |
| <b>Official Symbol</b> | LAMC1                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Synonyms</b>        | 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; MGC87297; |
| <b>Gene ID</b>         | 3915                                                                                                                                                                                                                                                                                                                                                                           |
| <b>mRNA Refseq</b>     | NM_002293                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Refseq</b>  | NP_002284                                                                                                                                                                                                                                                                                                                                                                      |
| <b>MIM</b>             | 150290                                                                                                                                                                                                                                                                                                                                                                         |
| <b>UniProt ID</b>      | P11047                                                                                                                                                                                                                                                                                                                                                                         |

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