

## Product datasheet for **TL311803**

### Laminin alpha 4 (LAMA4) Human shRNA Plasmid Kit (Locus ID 3910)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Laminin alpha 4 (LAMA4) Human shRNA Plasmid Kit (Locus ID 3910)
Locus ID:	3910
Synonyms:	CMD1Jj; LAMA3; LAMA4*-1
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	LAMA4 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 3910). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">BC004241</a> , <a href="#">NM_001105206</a> , <a href="#">NM_001105207</a> , <a href="#">NM_001105208</a> , <a href="#">NM_001105209</a> , <a href="#">NM_002290</a> , <a href="#">NM_002290.1</a> , <a href="#">NM_002290.2</a> , <a href="#">NM_002290.3</a> , <a href="#">NM_002290.4</a> , <a href="#">NM_001105208.1</a> , <a href="#">NM_001105208.2</a> , <a href="#">NM_001105209.1</a> , <a href="#">NM_001105209.2</a> , <a href="#">NM_001105207.1</a> , <a href="#">NM_001105207.2</a> , <a href="#">NM_001105206.1</a> , <a href="#">NM_001105206.2</a> , <a href="#">BC066552</a> , <a href="#">BC066552.1</a> , <a href="#">BC026237</a> , <a href="#">BM014298</a> , <a href="#">BM662226</a> , <a href="#">NM_001105207.3</a>
UniProt ID:	<a href="#">Q16363</a>



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**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 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 alpha chain isoform laminin, alpha 4. The domain structure of alpha 4 is similar to that of alpha 3, both of which resemble truncated versions of alpha 1 and alpha 2, in that approximately 1,200 residues at the N-terminus (domains IV, V and VI) have been lost. Laminin, alpha 4 contains the C-terminal G domain which distinguishes all alpha chains from the beta and gamma chains. The RNA analysis from adult and fetal tissues revealed developmental regulation of expression, however, the exact function of laminin, alpha 4 is not known. Tissue-specific utilization of alternative polyA-signal has been described in literature. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Aug 2011]

**shRNA Design:**

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**Performance Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).