

## Product datasheet for **RG200309**

### Legumain (LGMN) (NM\_001008530) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Legumain (LGMN) (NM_001008530) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Legumain
Synonyms:	AEP; LGMN1; PRSC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200309 representing NM_001008530 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTTTGGAAAGTAGCTGTATTCTCAGTGTGGCCCTGGGCATTGGTGCCATTCTATAGATGATCCTG  
AAGATGGAGGCAAGCACTGGGTGGTGATCGTGGCAGGTTCAAATGGCTGGTATAATTATAGGCACCAGGC  
AGACGCGTGCCATGCCTACCAGATCATTACCAGCAATGGGATTCCTGACGAACAGATCGTTGTGATGATG  
TACGATGACATTGCTTACTCTGAAGACAATCCCACTCCAGGAATTGTGATCAACAGGCCCAATGGCACAG  
ATGTCTATCAGGGAGTCCCGAAGGACTACACTGGAGAGGATGTTACCCACAAAAATTTCTTGCTGTGTT  
GAGAGGGGATGCAGAAGCAGTGAAGGGCATAGGATCCGGCAAAGTCTGAAGAGTGGCCCCAGGATCAC  
GTGTTCACTTACTTCACTGACCATGGATCTACTGGAATACTGGTTTTTCCAATGAAGATCTTCATGTAA  
AGGACCTGAATGAGACCATCCATTACATGTACAAACACAAAAATGTACCGAAAAGTGGTGTCTACATTGA  
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GTCCAGGCAGCTCACGGAGGAGATCCAGCGCATCTGGATGCCAGGCACCTCATTGAGAAGTCAGTGCCT  
AAGATCGTCTCCTTGCTGGCAGCGTCCGAGGCTGAGGTGGAGCAGCTCCTGTCCGAGAGAGCCCCGCTCA  
CGGGGCACAGCTGCTACCCAGAGGCCCTGCTGCACTTCCGGACCCACTGCTTCAACTGGCACTCCCCAC  
GTACGAGTATGCGTTGAGACATTTGTACGTGCTGGTCAACCTTTGTGAGAAGCCGTATCCACTTCACAGG  
ATAAAATTGTCCATGGACCAGTGTGCCTTGGTCACTAC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200309 representing NM\_001008530  
Red=Cloning site Green=Tags(s)

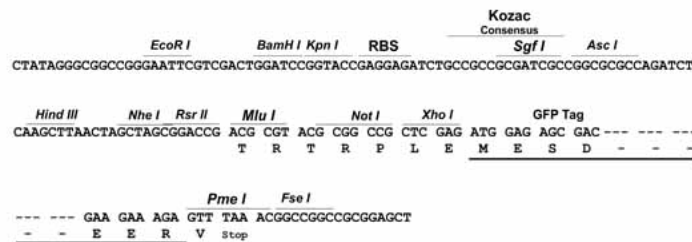
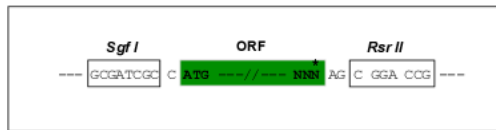
```
MVWKVAVFLSVALGIGAIPIDDPEDGGKHVVVIVAGSNGWYNRHOADACHAYQIIHRNGIPDEQIVVMM
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VFIYFDHGSTGILVFPNEDLHVKDLNETIHYMYKHKMYRKMVFYIEACESGSMNHLPDNINVYATTA
NPRESSYACYDEKRSTYLGDWYSVNWMESSDVEDLTKETLHKQYHLVKSHNTNTSHVMQYGNKTIISTMKV
MQFQGMKRKASSPVLPVTHLDLTPSPDVPLTIMKRKLMNTNDLEESRQLTEEIQRHLDARHLIEKSVR
KIVSLLAASEAEVEQLLSERAPLTGHSCYPEALLHFRTHCFNWHSPTYEYALRHLVYLVNLCCKPYPLHR
IKLSMDHVCLGHY
```

SGPTRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_001008530

**ORF Size:** 1299 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

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\\_001008530.1](#), [NP\\_001008530.1](#)

**RefSeq Size:** 2166 bp

**RefSeq ORF:** 1302 bp

**Locus ID:** 5641

**UniProt ID:** [Q99538](#)

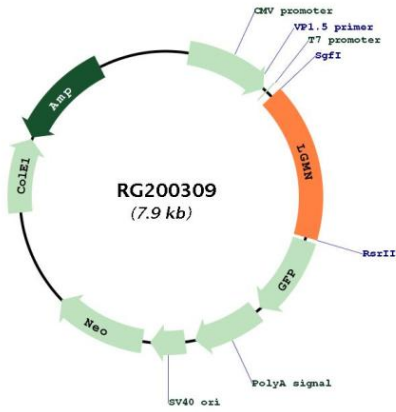
**Cytogenetics:** 14q32.12

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Antigen processing and presentation, Lysosome

**Gene Summary:** This gene encodes a cysteine protease that has a strict specificity for hydrolysis of asparaginyl bonds. This enzyme may be involved in the processing of bacterial peptides and endogenous proteins for MHC class II presentation in the lysosomal/endosomal systems. Enzyme activation is triggered by acidic pH and appears to be autocatalytic. Protein expression occurs after monocytes differentiate into dendritic cells. A fully mature, active enzyme is produced following lipopolysaccharide expression in mature dendritic cells. Overexpression of this gene may be associated with the majority of solid tumor types. This gene has a pseudogene on chromosome 13. Several alternatively spliced transcript variants have been described, but the biological validity of only two has been determined. These two variants encode the same isoform. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200309