

### OriGene Technologies, Inc.

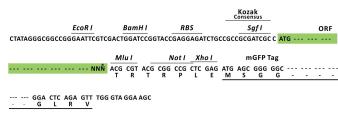
9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

# Product datasheet for RC201215L4

# Cathepsin S (CTSS) (NM\_004079) Human Tagged Lenti ORF Clone

# **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cathepsin S (CTSS) (NM_004079) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	Cathepsin S
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC201215).
<b>Restriction Sites:</b>	Sgfl-Mlul
Cloning Scheme:	
	Cloning sites used for ORF Shuttling:
	Sgf I         ORF         Miu I            GCG ATC GC         ATG // NNN         ACG CGT



 $^{\ast}$  The last codon before the Stop codon of the ORF.

ACCN: ORF Size: NM\_004079 993 bp



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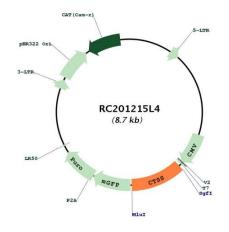
OTI Disclaimer:Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, DriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <u>custsupport@origene.com</u> or by calling 301.340.3188 option 3 for pricing and delivery.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 infoOTI Annotation:The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube contarining 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 include for 10 minutes at room temperature. 4. Briefly vortex the tube and hend to 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 004079.3RefSeq Size:996 bpLocus ID:1520UniProt ID:252774Cytogenetics:925774Cytogenetics:021.3Portein Families:Druggable Genome, ProteaseProtein Families:Nt		athepsin S (CTSS) (NM_004079) Human Tagged Lenti ORF Clone – RC201215L4
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 infoOTI 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 004079.3Refseq ORF:996 bpLocus ID:1520UniProt ID:252774Cytogenetics:1q21.3Domains:Pept_C1Protein Families:Progable Genome, ProteaseProtein Families:Druggable Genome, Protease	OTI Disclaimer:	of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <u>custsupport@origene.com</u> or by
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RefSeq Size:4107 bpRefSeq ORF:996 bpLocus ID:1520UniProt ID:P25774Otygenetics:1q21.3Domains:Pet_C1Protein Families:Druggable Genome, ProteaseProtein Pathways:Antigen processing and presentation, Lysosome	Reconstitution Met	<ol> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of</li> </ol>
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Locus ID:1520UniProt ID:P25774Cytogenetics:1q21.3Domains:Pept_C1Protein Families:Druggable Genome, ProteaseProtein Pathways:Antigen processing and presentation, Lysosome	RefSeq Size:	4107 bp
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Cytogenetics:1q21.3Domains:Pept_C1Protein Families:Druggable Genome, ProteaseProtein Pathways:Antigen processing and presentation, Lysosome	Locus ID:	1520
Domains:Pept_C1Protein Families:Druggable Genome, ProteaseProtein Pathways:Antigen processing and presentation, Lysosome	UniProt ID:	<u>P25774</u>
Protein Families:Druggable Genome, ProteaseProtein Pathways:Antigen processing and presentation, Lysosome	Cytogenetics:	1q21.3
Protein Pathways:         Antigen processing and presentation, Lysosome	Domains:	Pept_C1
	Protein Families:	Druggable Genome, Protease
<b>MW:</b> 37.5 kDa	Protein Pathways:	Antigen processing and presentation, Lysosome
	MW:	37.5 kDa

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### **GRIGENE** Cathepsin S (CTSS) (NM\_004079) Human Tagged Lenti ORF Clone – RC201215L4

# Gene Summary:The preproprotein encoded by this gene, a member of the peptidase C1 family, is a lysosomal<br/>cysteine proteinase that participates in the degradation of antigenic proteins to peptides for<br/>presentation on MHC class II molecules. The mature protein cleaves the invariant chain of<br/>MHC class II molecules in endolysosomal compartments and enables the formation of<br/>antigen-MHC class II complexes and the proper display of extracellular antigenic peptides by<br/>MHC-II. The mature protein also functions as an elastase over a broad pH range. When<br/>secreted from cells, this protein can remodel components of the extracellular matrix such as<br/>elastin, collagen, and fibronectin. This gene is implicated in the pathology of many<br/>inflammatory and autoimmune diseases and, given its elastase activity, plays a significant<br/>role in some pulmonary diseases. Alternatively spliced transcript variants encoding distinct<br/>isoforms have been found for this gene. [provided by RefSeq, May 2020]

### **Product images:**



Circular map for RC201215L4

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