

## Product datasheet for **TF305172**

### Cathepsin L (CTSL) Human shRNA Plasmid Kit (Locus ID 1514)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Cathepsin L (CTSL) Human shRNA Plasmid Kit (Locus ID 1514)
Locus ID:	1514
Synonyms:	CATL; CTSL1; MEP
Vector:	pRFP-C-RS (TR30014)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CTSL1 - Human, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 1514). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.
RefSeq:	<u><a href="#">NM_001257971</a></u> , <u><a href="#">NM_001257972</a></u> , <u><a href="#">NM_001257973</a></u> , <u><a href="#">NM_001912</a></u> , <u><a href="#">NM_145918</a></u> , <u><a href="#">NM_001912.1</a></u> , <u><a href="#">NM_001912.2</a></u> , <u><a href="#">NM_001912.3</a></u> , <u><a href="#">NM_001912.4</a></u> , <u><a href="#">NM_145918.1</a></u> , <u><a href="#">NM_145918.2</a></u> , <u><a href="#">NM_001257973.1</a></u> , <u><a href="#">NM_001257971.1</a></u> , <u><a href="#">NM_001257972.1</a></u> , <u><a href="#">BC012612</a></u> , <u><a href="#">BC012612.1</a></u> , <u><a href="#">BC142983</a></u> , <u><a href="#">BM680778</a></u> , <u><a href="#">NM_001257973.2</a></u> , <u><a href="#">NM_001257971.2</a></u> , <u><a href="#">NM_001257972.2</a></u> , <u><a href="#">NM_001912.5</a></u> , <u><a href="#">NM_145918.3</a></u>
UniProt ID:	<u><a href="#">P07711</a></u>
Summary:	The protein encoded by this gene is a lysosomal cysteine proteinase that plays a major role in intracellular protein catabolism. Its substrates include collagen and elastin, as well as alpha-1 protease inhibitor, a major controlling element of neutrophil elastase activity. The encoded protein has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal tubular response to proteinuria. This protein, which is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. Additionally, this protein cleaves the S1 subunit of the SARS-CoV-2 spike protein, which is necessary for entry of the virus into the cell. [provided by RefSeq, Aug 2020]
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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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**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).