Product datasheet for TR305176

Cathepsin B (CTSB) Human shRNA Plasmid Kit (Locus ID 1508)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Cathepsin B (CTSB) Human shRNA Plasmid Kit (Locus ID 1508)
Locus ID:	1508
Synonyms:	APPS; CPSB; RECEUP
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CTSB - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1508). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_001317237, NM_001908, NM_147780, NM_147781, NM_147782, NM_147783, NM_147783.1, NM_147783.2, NM_147783.3, NM_001908.1, NM_001908.2, NM_001908.3, NM_001908.4, NM_147782.1, NM_147782.2, NM_147782.3, NM_147780.1, NM_147780.2, NM_147780.3, NM_147781.1, NM_147781.2, NM_147781.3, BC095408, BC095408.1, BC010240, BM008741, NM_147783.4, NM_147780.4, NM_147781.4, NM_147782.4, NM_001908.5
UniProt ID:	P07858

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Summary:	This gene encodes a member of the C1 family of peptidases. Alternative splicing of this gene results in multiple transcript variants. At least one of these variants encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin B light and heavy chains, which can dimerize to form the double chain form of the enzyme. This enzyme is a lysosomal cysteine protease with both endopeptidase and exopeptidase activity that may play a role in protein turnover. It is also known as amyloid precursor protein secretase and is involved in the proteolytic processing of amyloid precursor protein (APP). Incomplete proteolytic processing of APP has been suggested to be a causative factor in Alzheimer's disease, the most common cause of dementia. Overexpression of the encoded protein has been associated with esophageal adenocarcinoma and other tumors. Both Cathepsin B and Cathepsin L are involved in the cleavage of the spike protein from the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) upon its entry to the human host cell. Multiple pseudogenes of this gene have been identified. [provided by RefSeq, Sep 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 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred). |