Product datasheet for RC213147

CST11 (NM_130794) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CST11 (NM_130794) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CST11
Synonyms:	CST8L; CTES2; dJ322G13.6; SC13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213147 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGATGGCTGAGCCCTGGCAGGCCCTACAGCTCCTGTTGGCCATTCTATTGACTCTGATGGCCCTCCCCT ACCAAGCAAGGAAGAAAACCTTTCTAAGCGTCCATGAAGTGATGGCAGTAGAAAACTATGCGAAGGACAG CTTGCAGTGGATCACCGACCAGTATAACAAGGAAAGTGATGACAAGTACCACTTCAGGATCTTCCGAGTC CTTAAAGTCCAGAGGCAGGTCACTGACCACCTGGAGTATCACCTGAACGTGGAAATGCAGTGGACCACCT GCCAAAAGCCAGAGACCACGAACTGTGTCCCCCAGGAAAGGGAGCTTCACAAGCAAGTCAACTGCTTCTT CTCAGTGTTTGCTGTACCCTGGTTTGAACAGTACAAAATTTTGAACAAAAGCTGCAGCAGTGAC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC213147 protein sequence Red=Cloning site Green=Tags(s) MMAEPWQALQLLLAILLTLMALPYQARKKTFLSVHEVMAVENYAKDSLQWITDQYNKESDDKYHFRIFRV LKVQRQVTDHLEYHLNVEMQWTTCQKPETTNCVPQERELHKQVNCFFSVFAVPWFEQYKILNKSCSSD TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6441_d04.zip
Restriction Sites:	SgfI-MluI

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Cloning Scheme:

Cloning sites used for ORF Shuttling:

```
        Sgf I              ORF            Mlu I
--- GCGATCGC C ATG ----//---- NNN  ACG CGT ---
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                                              Kozac
                                             Consensus
        EcoR I         BamH I Kpn I   RBS      Sgf I
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG ---- ----
```

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        ORF                 Mlu I       Not I      Xho I        Myc.Tag
--- ---- ---- ---- NNN  ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
                          T   R   T   R   P   L   E   Q   K   L   I   S   E   E
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              EcoR V              Flag.Tag              Pme I   Fse I
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGCC
 D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V   stop
```

* The last codon before the Stop codon of the ORF

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ACCN:	NM_130794
ORF Size:	414 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_130794.1, NP_570612.1
RefSeq Size:	553 bp
RefSeq ORF:	417 bp

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Locus ID:	140880
UniProt ID:	Q9H112
Cytogenetics:	20p11.21
Protein Families:	Transmembrane
MW:	16.5 kDa
Gene Summary:	The cystatin superfamily encompasses proteins that contain multiple cystatin-like sequences. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired this inhibitory activity. There are three inhibitory families in the superfamily, including the type 1 cystatins (stefins), type 2 cystatins and the kininogens. The type 2 cystatin proteins are a class of cysteine proteinase inhibitors found in a variety of human fluids and secretions. The cystatin locus on chromosome 20 contains the majority of the type 2 cystatin genes and pseudogenes. This gene is located in the cystatin locus and encodes an epididymal-specific protein shown to have antimicrobial activity against E. coli. Alternative splicing yields two variants encoding distinct isoforms. [provided by RefSeq, Sep 2014]

Product images:
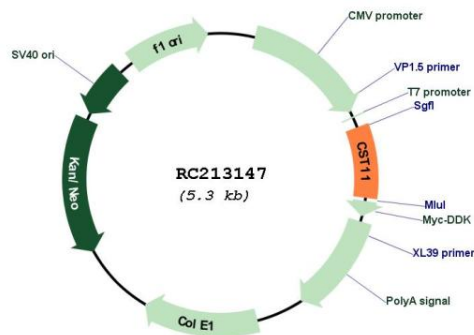
Circular map for RC213147
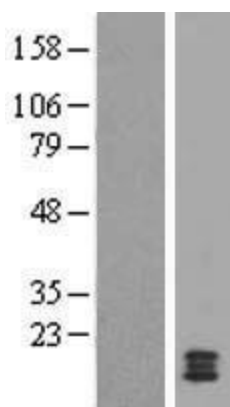
Western blot validation of overexpression lysate (Cat# [LY408948]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213147 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).