

## Product datasheet for RC202514

### CHST12 (NM\_018641) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CHST12 (NM_018641) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CHST12
Synonyms:	C4S-2; C4ST-2; C4ST2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202514 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCAAGGCCCGGCTGTTCCGGCTGTGGCTGGTCTGGGGTCGGTGTTTCATGATCCTGCTGATCATCG  
TGTACTGGGACAGCGCAGGCGCCGCGCACTTCTACTTGCACACGTCCTTCTCTAGGCCGCACACGGGGCC  
GCCGCTGCCACGCCGGGGCCGGACAGGGACAGGGAGCTACGGCCGACTCCGATGTCGACGAGTTTCTG  
GACAAGTTTCTCAGTGTGGCGTGAAGCAGAGCGACCTTCCAGAAAGGAGACGGAGCAGCCGCCTGCGC  
CGGGGAGCATGGAGGAGCGGTGAGAGGCTACGACTGGTCCCGCGCGACGCCCGCGCAGCCAGACCA  
GGCCCGCAGCAGGCGGAGCGGAGGAGCGTGTGCGGGGCTTCTGCGCCTTCCAGCCTGCCCTCCCC  
ACCAAGGAGCGCGCATTGACGACATCCCCAAGCTCGGAGCTGAGCCACCTGATCGTGGACGACCCGGCAG  
GGCCATCTACTGCTACGTGCCAAGGTGGCTGCACCACTGGAAGCGCGTGATGATCGTGTGAGCGG  
AAGCCTGCTGCACCGCGGTGCGCCCTACCGCGACCCGCTGCGCATCCCGCGCGAGCACGTGCACAACGCC  
AGCGCGCACCTGACCTTCAACAAGTTCTGGCGCCGCTACGGGAAGCTCTCCCGCCACCTCATGAAGTCA  
AGCTCAAGAAGTACCAAGTTCTCTCTGTCGCGACCCCTTCGTGCGCTGATCTCCGCCCTCCGCGAG  
CAAGTTCGAGCTGGAGAACGAGGAGTTTACCCGAAGTTCGCCGTGCCATGCTGCGGCTGTACGCCAAC  
CACACCAGCCTGCCGCCTCGGCAGCGAGGCGTTCCGCGTGGCCTCAAGGTGCTCTCCGCCAAGTCA  
TCCAGTACCTGCTGGACCCGCACACGGAGAAGCTGGCGCCCTTCAACGAGCACTGGCGGCAAGTGTACCG  
CCTCTGCCACCCGTGCCAGATCGACTACGACTTCGTGGGGAAGCTGGAGACTCTGGACGAGGACGCCGCG  
CAGCTGTGCAGCTACTCCAGGTGGACCGCAGCTCCGCTTCCCGCAGCTACCGGAACAGGACCCGCA  
GCAGCTGGGAGGAGGACTGGTTCGCCAAGATCCCCCTGGCCTGGAGGCAGCAGCTGTATAAACTCTACGA  
GGCCGACTTTGTTCTTTCGGCTACCCCAAGCCCAGAAACCTCTCCGAGAC

**ACGGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202514 protein sequence  
Red=Cloning site Green=Tags(s)

MTKARLFRLWLVLGVSVMILLIIIVYWDSAGAAHFYLHTSFSRPHTGPPLPTPGPDRDRELTADSDVDFL  
 DKFLSAGVKQSDLPRKETEOPAPGSMEE SVRGYDWSPRDARRSPDQGRQAERRSVLRGFCANSSLAFF  
 TKERAFDDIPNSEL SHLIVDDRHGAIYCYVPKVACTNWKRVMI VLSGSL LHARGAPYRDPLRIPREHVHNA  
 SAHLTFNKFWRRYGKLSRHLMKVKLKYYTKFLFVRDPFVRLISAFRSKFELENEEFYRKFVAVPMLRLYAN  
 HTSLPASAREAFRAGLKVSFANFIQYLLDPHTEKLPAPFNEHWRQVYRLCHPCQIDYDFV GKLETLDEDA  
 QLLQLLQVDRQLRFPPSYRNRTASSWEEDWFAKIPLAWRQQLYKLYEADFVLF GYPKPENLLRD

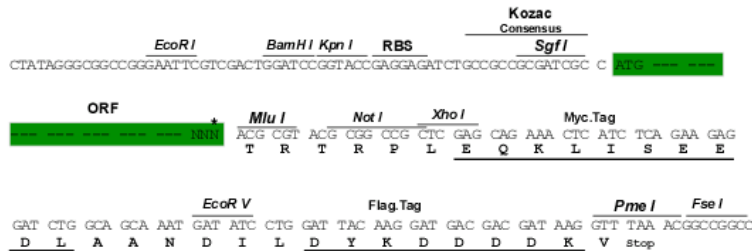
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6381\\_c05.zip](https://cdn.origene.com/chromatograms/mk6381_c05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_018641

**ORF Size:** 1242 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\\_018641.5](#)

**RefSeq Size:** 2159 bp

**RefSeq ORF:** 1245 bp

**Locus ID:** 55501

**UniProt ID:** [Q9NRB3](#)

**Cytogenetics:** 7p22.3

**Domains:** Sulfotransfer2

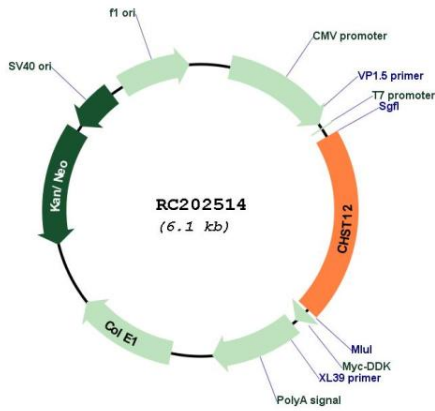
**Protein Families:** Transmembrane

**Protein Pathways:** Chondroitin sulfate biosynthesis, Sulfur metabolism

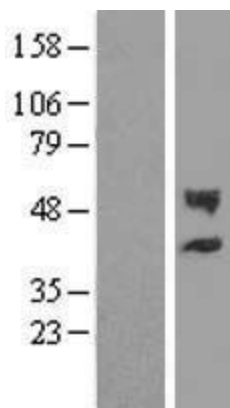
**MW:** 48.4 kDa

**Gene Summary:** The protein encoded by this gene belongs to the sulfotransferase 2 family. It is localized to the golgi membrane, and catalyzes the transfer of sulfate to position 4 of the N-acetylgalactosamine (GalNAc) residue of chondroitin and desulfated dermatan sulfate. Chondroitin sulfate constitutes the predominant proteoglycan present in cartilage, and is distributed on the surfaces of many cells and extracellular matrices. Alternatively spliced transcript variants differing only in their 5' UTRs have been found for this gene. [provided by RefSeq, Aug 2011]

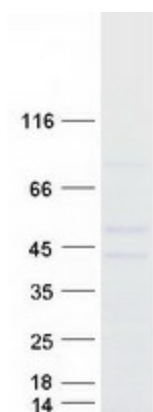
Product images:



Circular map for RC202514



Western blot validation of overexpression lysate (Cat# [LY412989]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202514 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CHST12 protein (Cat# [TP302514]). The protein was produced from HEK293T cells transfected with CHST12 cDNA clone (Cat# RC202514) using MegaTran 2.0 (Cat# [TT210002]).