

## Product datasheet for RN201073

### Stn1 (NM\_001011943) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Stn1 (NM\_001011943) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Stn1  
**Synonyms:** Obfc1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Fully Sequenced ORF:** >RN201073 representing NM\_001011943  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCAGAACCTTGCCTTTTGTGTCAGTGCGAATCCAGTCCAAAAGAAGAGGAGATCCCGTCCCTTTTT  
 GGGGTCTGGATCCCGTGTCTAGCCTTTGCAAACTCTACATCAAGGACATCCTGGAGATGAAGGAGTC  
 CCAACAAGTGCCAGGCATGTATTTTACAATGGACATCCAATAAGACGGGTGGATATCATGGGAGCTGC  
 ATCAGTGTGAAAGAGAGAGAGACTTTCTACAGCTATGGAGTGGATGACGCCACAGGGTTATAAACTGTG  
 TGTGCTGGAAGGCCAAGCAATGCCGAGTCTTATCAGACCCAGCTATTCTGAGCACTCGAGAGAACT  
 CAGCATGACCTCACAGCTTAAGAACTGCAGGAGACCATTGAGCAGAAAACCAAGATCGGGATTGGGGAT  
 ATCATCCGAGTCCGAGGCTACGTGCGTATGTTCCGAGAAGAGCGAGAGATCTGTGCCACCATTTATTATA  
 AGGTGGACGATCCAGTGTGGAACATGCAATTGCAAGGATGCTTGAGCTGCCAGAGCTCTACAAGAAGGT  
 GTATGACCAGCCCTCCGGAACCCAGCCCTAAAGGAGGAAGAGGCACTAAACAGTAAAGACACTTTGGAT  
 CTCGCTGGCCTCACGGCTTTGTTGAGTGAGAAAGTTAAAGAAATTTCTCCAGGAGAAGAAAGTGCAAAGCT  
 TCTACCAGAAGGAGCTGGAATGGTGGAGCCCTTGCACTCTGGCCAGTCAGCCCGTGACCCACAGCAC  
 GTGCTCGGACCAAGTGGAGTTAAGAACGACGCCGCTTCTGACATACACAGTGTGTTAAGAAATGCTCTG  
 CACCTGCTTCAGGAAAAGGGTTCTGTTCCAGAGAGACGGTGGCTCCGATAAGCTGTACTATGTTACCA  
 GTAAGGACAAAGACCTGCACCAGAAGATCTACCAGATCATTAAAGGAAGACTGTCAGAAAACCAATCTGTG  
 GTGCATGCTGCCTCAGGAGGCCCTGGAGAGGGACTGAGGAAGGCCTGGCCGTCGTGGTGCACACTTAGTGTC  
 TGCCCTGCCCTTGCCCGTAGATGTGGAGAAGGGCTGCCACTTGATGCACGTCTGAACTGCGTGCTCCTCA  
 ACCTCCGCTGGGACCTGAACAAGGCTGTGCTGCAGCAGGTGCTGGAGCTCCTGGAGGACCAGAGCGACAT  
 TGTGAGTACTGGAGACCACTACTACACGGCCTT**CTGA**

**ACGGT**ACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001011943
<b>Insert Size:</b>	1227 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_001011943.1, NP_001011943.1</u>
<b>RefSeq Size:</b>	1555 bp
<b>RefSeq ORF:</b>	1227 bp
<b>Locus ID:</b>	294025
<b>UniProt ID:</b>	<u>Q6AYD2</u>
<b>Cytogenetics:</b>	1q54

**Gene Summary:**

Component of the CST complex proposed to act as a specialized replication factor promoting DNA replication under conditions of replication stress or natural replication barriers such as the telomere duplex. The CST complex binds single-stranded DNA with high affinity in a sequence-independent manner, while isolated subunits bind DNA with low affinity by themselves. Initially the CST complex has been proposed to protect telomeres from DNA degradation. However, the CST complex has been shown to be involved in several aspects of telomere replication. The CST complex inhibits telomerase and is involved in telomere length homeostasis; it is proposed to bind to newly telomerase-synthesized 3' overhangs and to terminate telomerase action implicating the association with the ACD:POT1 complex thus interfering with its telomerase stimulation activity. The CST complex is also proposed to be involved in fill-in synthesis of the telomeric C-strand probably implicating recruitment and activation of DNA polymerase alpha. The CST complex facilitates recovery from many forms of exogenous DNA damage; seems to be involved in the re-initiation of DNA replication at repaired forks and/or dormant origins. Required for efficient replication of the duplex region of the telomere. Promotes efficient replication of lagging-strand telomeres. Promotes general replication start following replication-fork stalling implicating new origin firing. May be involved in C-strand fill-in during late S/G2 phase independent of its role in telomere duplex replication (By similarity).[UniProtKB/Swiss-Prot Function]