

## Product datasheet for **RG208327**

### HS3ST3A1 (NM\_006042) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HS3ST3A1 (NM_006042) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HS3ST3A1
Synonyms:	3-OST-3A; 3OST3A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG208327 representing NM_006042 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCCCCTCCGGCCCCGCCAGTGCCCTCTCCACCTCGGCCGAGCCGCTGTCCCGCAGCATCTTCCGGA  
AGTTCTTGCTGATGCTCTGCTCCCTGCTCACGTCCCTTTACGTCTTCTACTGCCTGGCCGAGCGCTGCCA  
GACCCTGTCCGGCCCCGTCTGTTGGGCTGTCCGGCGGCCGAGGAGGCGGGGCCCTGGTGGCGGCGTC  
CTGGCCGAGGCCCGAGGGAGCTGGCGGTGTGGCCGGCGGCCGACAGAGAAAGCGCTCCTGCAACTGC  
CGCAGTGGCGGAGGCGCCGGCCCGCCCGCCCGCAGCAGCGGCGAGGAGGCGGCTGGGAAGAAGAGTC  
CCCTGGCCTGTCAGGGGGTCCGGGCGGCTCCGGGGCCGGAAGCACCGTGGCCGAGGCCCGCCGGGACC  
CTGGCGCTGCTCCTGGACGAAGGCAGCAAGCAGCTGCCGAGGCCATCATCATCGGAGTGAAGAAGGGCG  
GCACGCGGGCGCTGCTGGAGTTCTGCGCGTGACCCCGACGTGCGCGCCGTGGGCGCCGAGCCCCACTT  
CTTCGACCGCAGCTACGACAAGGGCCTCGCCTGGTACCGGGACCTGATGCCAGAACCTGGACGGGCAG  
ATCACCATGGAGAAGACGCCAGTTACTTCGTACGCGGGAGGCCCGCGCGCATCTCGGCCATGTCCA  
AGGACACCAAGCTCATCGTGGTGGTGGGGACCGGTGACCAGGGCCATCTCGGACTACACGCAGACGCT  
GTCCAAGCGGCCGACATCCCCACCTTCGAGAGCTTGACGTTCAAAAACAGGACAGCGGGCCTCATCGAC  
ACGTCGTGGAGCGCCATCCAGATCGGCATCTACGCCAAGCACCTGGAGCACTGGCTGCGCACTTCCCCA  
TCCGCCAGATGCTCTTCGTGAGCGGCGAGCGGCTCATCAGCGACCGGCCGGGGAGCTGGGCCCGCTGCA  
AGACTTCTGGGCTCAAGAGGATCATCACGGACAAGCACTTCTACTTCAACAAGACCAAGGGCTTCCCC  
TGCCTGAAGAAGGCGGAGGGCAGCAGCCGGCCCCATTGCCTGGGCAAGACCAAGGCGAGGCCATCCTG  
AGATCGACCGGAGGTGGTGCAGGCTGCGCGAGTTCTACCGGCTTTCAACCTCAAGTTCTACCAGAT  
GACCGGGCAGCACTTTGGCTGGGATGGA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG208327 representing NM\_006042  
 Red=Cloning site Green=Tags(s)

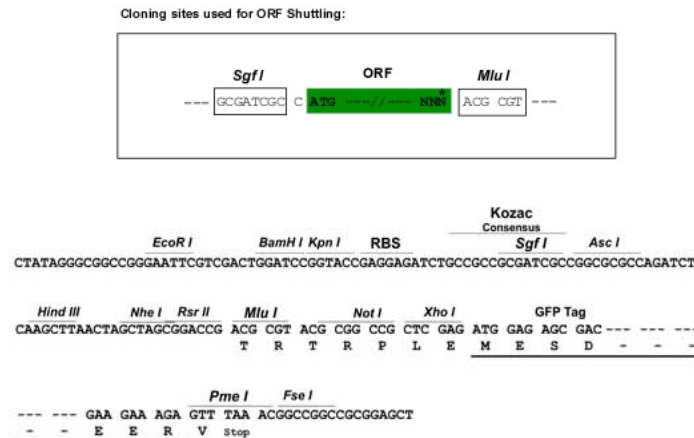
MAPPGPASALSTSAEPLSRSIFRKFLMLCSLLTSLYVFYCLAERCQTLSPVVGVLGGGEEAGAPGGGV  
 LAGGPRELAVWPAQAQRKRLQLPQWRRRRPPAPRDDGEEAAWEEESPGLSGGPGSGAGSTVAEAPPGT  
 LALLLDEGSKQLPQAIIGVKKGGTRALLEFLRVHPDVRAVGAEPHFFDRSYDKGLAWYRDLMPRTL DGQ  
 ITMEKTPSYFVTREAPARISAMSKDTKLIVVVRDPVTRAISDYQTLSKRPDIPTFESLTFKNRTAGLID  
 TSWSAIQIGIYAKHLEHWLRHFPIRQMLFVSGERLISDPAGELGRVQDFLGLKRIITDKHFFYNKTKGFP  
 CLKKAEGSSRPCHLGKTKGRTHPEIDREVVRRLREFYRPFNLKFYQMTGHDFGWDG

TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006042

**ORF Size:** 1218 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\\_006042.3](#)

**RefSeq Size:** 2546 bp

**RefSeq ORF:** 1221 bp

**Locus ID:** 9955

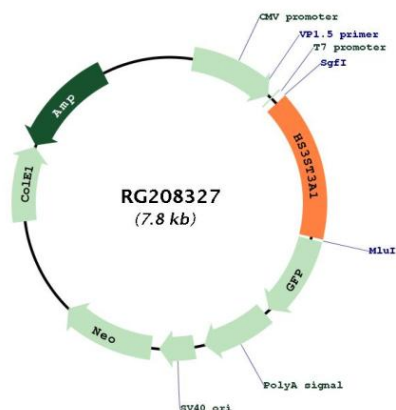
**UniProt ID:** [Q9Y663](#)

**Cytogenetics:** 17p12

**Protein Pathways:** Glycosaminoglycan degradation, Heparan sulfate biosynthesis

**Gene Summary:** Heparan sulfate biosynthetic enzymes are key components in generating a myriad of distinct heparan sulfate fine structures that carry out multiple biologic activities. The enzyme encoded by this gene is a member of the heparan sulfate biosynthetic enzyme family. It is a type II integral membrane protein and possesses heparan sulfate glucosaminyl 3-O-sulfotransferase activity. The sulfotransferase domain of this enzyme is highly similar to the same domain of heparan sulfate D-glucosaminyl 3-O-sulfotransferase 3B1, and these two enzymes sulfate an identical disaccharide. This gene is widely expressed, with the most abundant expression in liver and placenta. [provided by RefSeq, Dec 2014]

## Product images:



Circular map for RG208327