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Product datasheet for RG225282

HS2ST1 (NM_001134492) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HS2ST1 (NM_001134492) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HS2ST1
Synonyms:	dJ604K5.2; NFSRA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG225282 representing NM_001134492
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGCTCCTCAGGATTATGATGCCGCCCAAGTTGCAGCTGCTGGCGGTGGTGGCCTTCGCGGTGGCGA
TGCTCTTCTTGGAAAACCAGATCCAGAAACTGGAGGAGTCCCGCTCGAAGCTAGAAAGGGCTATTGCAAG
ACACGAAGTCCGAGAAATTGAGCAGCGACATACAATGGATGGCCCTCGGCAAGATGCCACTTTAGATGAG
GAAGAGGACATGGTGATCATTTATAACAGAGTTCCCAAAACGGCAAGCACTTCATTTACCAATATCGCCT
ATGACCTGTGTGCAAAGAATAAATACCATGTCCTTCATATCAACACTACCAAAAATAATCCAGTGATGTC
ATTGCAAGATCAGGTGCGCTTTGTAAAGAATATAACTTCCTGGAAAGAGATGAAACCAGGATTTTATCAT
GGACACGTTTCTTACTTGGATTTTGCAAAATTTGGTGTGAAGAAGAAACCAATTTACATTAATGTCATAA
GGGATCCTATTGAGAGGCTAGTTTCTTATTATTACTTTCTGAGATTTGGAGATGATTATAGACCAGGGTT
ACGGAGACGAAAACAAGGAGACAAAAAGACCTTTGATGAATGTGTAGCAGAAGGTGGCTCAGACTGTGCT
CCAGAGAAGCTCTGGCTTCAAATCCCGTTCTTCTGTGGCCATAGCTCCGAATGCTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

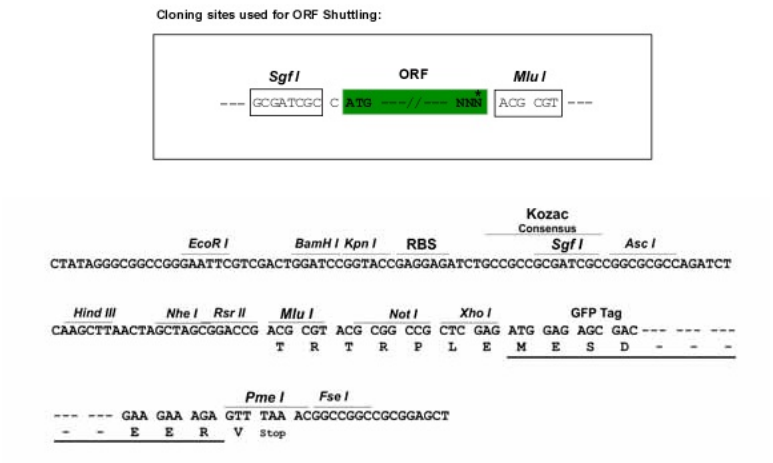
>RG225282 representing NM_001134492
Red=Cloning site Green=Tags(s)

MGLLRIMMPPKLQLLAVVAFAVAMLFLENQIQKLEESRSKLERAIARHEVREIEQRHTMDGPRQDATLDE
EEDMVIIYNRVPKTASTSFTNIAYDLCAKNKYHVLHINTTKNNPVMSLQDQVRFVKNITSWKEMKPGFYH
GHVSYLDFAKFGVKKKPIYINVIRDPIERLVSYYYFLRFGDDYRPGLRRRKQGDKKTFDECVAEGGSDCA
PEKLWLQIPFFCGHSSECW

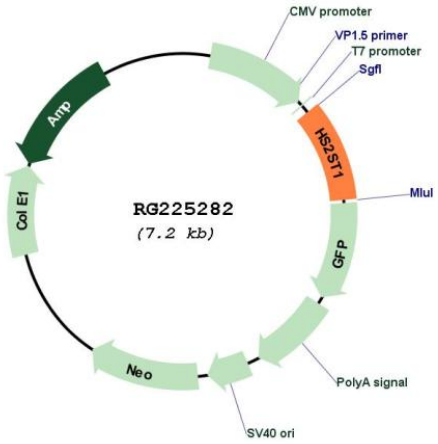
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001134492

ORF Size: 687 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_001134492.2
RefSeq Size:	1623 bp
RefSeq ORF:	690 bp
Locus ID:	9653
UniProt ID:	Q7LGA3
Cytogenetics:	1p22.3
Protein Pathways:	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. This gene encodes a member of the heparan sulfate biosynthetic enzyme family that transfers sulfate to the 2 position of the iduronic acid residue of heparan sulfate. The disruption of this gene resulted in no kidney formation in knockout embryonic mice, indicating that the absence of this enzyme may interfere with the signaling required for kidney formation. Two alternatively spliced transcript variants that encode different proteins have been found for this gene. [provided by RefSeq, Aug 2008]