

Product datasheet for MR205424

Hs2st1 (NM_011828) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hs2st1 (NM_011828) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hs2st1
Synonyms:	2OST; AW214369; Hs2st; mKIAA0448
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205424 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCTCCTCAGGATTATGATGCCGCCCAAGTTGCAGCTGCTGGCGGTGGTGGCCTTCGCGGTGGCGA
TGCTCTTCTTGGAGAACCAGATCCAGAAGCTGGAGGAGTCCCAGGCGAAGCTAGAAAGGGCAATTGCAAG
GCACGAAGTCCGAGAAATTGAACAGCGCCATACAATGGATGGCCCTCGGCAGGATGCAACTCTGGATGAA
GAAGAAGACATCATCATTTATAACAGAGTGCCCAAACTGCAAGCACCTCGTTCACCAATATAGCCT
ACGACCTGTGTCAAAGAATAGATACCATGTTCTCACATCAACTACCAAAAATAACCCAGTAATGTC
ATTGCAAGATCAGGTGCGCTTTGTGAAGAACATAACCACCTGGAACGAGATGAAGCCAGGCTTCTATCAC
GGACACATCTCTTACTTGGATTTTGCAAAATTCGGTGTGAAGAAGAAACCGATTTATATCAATGTATCA
GGGACCCTATTGAGAGGCTAGTTTCTACTATTCTCCTGAGGTTTGGAGATGATTACAGACCAGGATT
AAGGAGACGGAACAAGGAGACAAAAGACCTTCGATGAATGTGTGGCTGAGGGCGGCTCCGACTGTGCT
CCAGAGAAGCTCTGGCTTCAGATTCCGTTCTTCTGTGGCCACAGCTCAGAATGCTGGAATGTAGGGAGCA
GATGGGCCATGGACCAGGCTAAGTCTAACCTCATTAAATGAGTACTTCTGGTGGGAGTCAACGAGGAGCT
CGAGGACTTCATCATGCTGCTCGAGGCAGCTTTGCCCGATTCTCCGGGGCGCTACCGACCTCTACCGT
ACAGGAAAGAAATCTCACCTTAGGAAAACACAGAGAAGAAGCTGCCACCAAGCAAATATCGCGAAGC
TGACAGTCTGACATTTGGAAGATGGAGAACGAGTTCTATGAGTTTGTCTGGAGCAGTCCAGTTTCAT
CCGAGCTCACGCTGTCCACGAGAAAGACGGAGACCTCTACATCTGGCCAGAATTTTTCTACGAAAAG
ATTTACCTAAGTCGAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >MR205424 protein sequence
Red=Cloning site Green=Tags(s)

MGLLRIMMPPKLQLLAVVAFVAVMLFLENQIQKLEESRAKLERAIARHEVREIEQRHTMDGPRQDATLDE
 EEDIIIIYNRVPKTASTSFTNIAIDLCAKNRYHVLHINTTKNNPVMSLQDQVRFVKNITTWEMKPGFYH
 GHISYLDFAKFGVKKKPIYINVIKPIERLVSYFFLRFGDDYRPLRRRKQGDKTFDECVAEGGSDCA
 PEKLLWLQIPFFCGHSSECVNVSRSWAMDQAKSNLINEYFLVGVTEELDFIMLLEAALPRFFRGATDLYR
 TGKSHLRKTEKKLPTKQTIKLLQSDIWKMENEFYEFALQFQFIRAHAVHEKDGDLIYLAQNFFYEK
 IYPKSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_011828

ORF Size: 1071 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_011828.2](#), [NP_035958.2](#)

RefSeq Size: 4811 bp

RefSeq ORF: 1071 bp

Locus ID: 23908

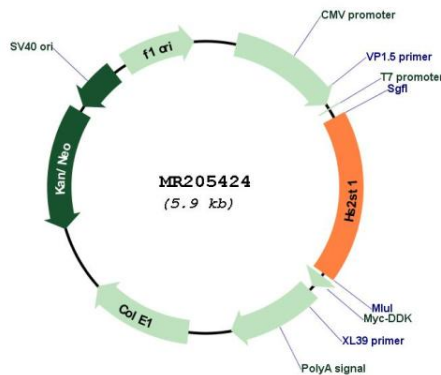
UniProt ID: [Q8R3H7](#)

Cytogenetics: 3 H2

MW: 41.8 kDa

Gene Summary: Catalyzes the transfer of sulfate to the C2-position of selected hexuronic acid residues within the maturing heparan sulfate (HS). 2-O-sulfation within HS, particularly of iduronate residues, is essential for HS to participate in a variety of high-affinity ligand-binding interactions and signaling processes. Required for metanephric development of kidney formation, suggesting that 2-O-sulfation within HS is essential for signaling between ureteric bud and metanephric mesenchyme. Mediates 2-O-sulfation of both L-iduronyl and D-glucuronyl residues. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205424