

Product datasheet for **RC208270**

SGSH (NM_000199) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SGSH (NM_000199) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SGSH
Synonyms:	HSS; MPS3A; SFMD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC208270 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCTGCCCGTGCCCGCCTGCTGCGCGCTGCTGCTAGTCCTGGGGCTCTGCCGGCGCGTCCCCGGA
 ACGCACTGCTGCTCCTCGCGGATGACGGAGGCTTTGAGAGTGGCGGTACAAACAACAGCGCCATCGCCAC
 CCCGACCTGGACGCCTTGGCCCGCCGACGCTCCTCTTTCGCAATGCCTTCACCTCGGTGAGCAGCTGC
 TCTCCAGCCGCGCCAGCCTCCTCACTGGCCTGCCCGAGCATCAGAATGGGATGTACGGGCTGCACCAGG
 ACGTGCACCACCTCAACTCCTTCGACAAGGTGCGGAGCCTGCCGCTGCTGCTCAGCCAAGCTGGTGTGCG
 CACAGGCATCATCGGAAGAAGCACGTGGGGCCGGAGACCCTGTACCCGTTTGACTTTGCGTACACGGAG
 GAGAATGGCTCCGTCCTCAGGTGGGGCGGAACATCACTAGAATTAAGCTGCTCGTCGGAAATTCCTGC
 AGACTCAGGATGACCGGCCTTTCTTCTCTACGTCGCCTTCCACGACCCCAACCGCTGTGGGCACTCCCA
 GCCCAGTACGGAACCTTCTGTGAGAAGTTTGGCAACGGAGAGAGCGGCATGGGTGATCCAGACTGG
 ACCCCCCAGGCCTACGACCCACTGGACGTGCTGGTGCCTTACTTCGTCCCAACACCCCGGAGCCCGAG
 CCGACCTGGCCGCTCAGTACACCACCGTAGGCCGATGGACCAAGGAGTTGGACTGGTGTCTCCAGGAGCT
 GCGTGACGCCGCTGCTCTGAACGACACACTGGTGTATTTACGTCGACAAACGGGATCCCTTCCCCAGC
 GGCAGGACCAACCTGACTGGCCGGGACTGCTGAACCTTACTGGTGTATCCCGGAGACCCAAAAC
 GCTGGGGCCAAGTCAGCGAGGCCACGTGAGCCTCCTAGACCTCACGCCACCATCTTGGATTGGTTCTC
 GATCCCGTACCCAGCTACGCCATCTTTGGCTCGAAGACCATCCACCTCACTGGCCGGTCCCTCTGCCG
 GCGCTGGAGGCCGAGCCCTCTGGGCCACCGCTTTGGCAGCCAGAGCCACCACGAGTCCACCATGTCTCT
 ACCCCATGCGCTCCGTGCAGCACCGGCACTTCCGCCTCGTGCACAACCTCAACTTCAAGTACCCCTTCC
 CATCGACCAAGACTTCTACGTCTCACCCACCTTCCAGGACTCCTGAACCGCACTACAGCTGGTTCAGCCC
 ACGGGCTGGTACAAGGACCTCCGTCATTACTACTACCGGGCGCGCTGGGAGCTCTACGACCGGAGCCGGG
 ACCCCACGAGACCCAGAACCTGGCCACCGACCCGCGCTTTGCTCAGCTTCTGGAGATGCTTCGGGACCA
 GCTGGCCAAGTGGCAGTGGGAGACCCACGACCCCTGGGTGTGCGCCCCGACGGCGTCTGGAGGAGAAG
 CTCTCTCCCAAGTCCAGCCCTCCACAATGAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208270 protein sequence
 Red=Cloning site Green=Tags(s)

MSCPVPACALLLVGLCRARPRNALLLADDGGFESGAYNNSAIATPHLDALARRSLLFRNAFTSVSSC
 SPSRASLLTGLPQHONGMYGLHQDVHFNFSFDKVRSLPLLLSQAGVRTGIIGKKHVGPEVYYPDFAYTE
 ENGSVLQVGRNITRIKLLVRKFLQTQDDRPFLLYVAFHDPHRCGHSQPQYGTFCFKFNGESGMGRIPDW
 TPQAYDPLDVLVPYFVPNTPAARADLAAQYTTVGRMDQGVGLVLQELRDAGVLDLTLVIFTSDNGIPFPS
 GRTNLYWPGTAEPPLVSSPEHPKRWQVSEAYVSLDLTPTILDWFSIPYPSYAIIFGSKTIHLTGRSLLP
 ALEAEPLWATVFGSQSHHEVTMSYPMRSVQHRHFRLVHNLNFKMPFPIDQDFYVSPFTQDLLNRTTAGQP
 TGWYKDLRHYYRARWELYDRSRDPHETQNLATDPRFAQLLEMLRDQLAKWQWETHDPWVCAPDGVLEEK
 LSPQCQPLHNEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6528_g11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000199

ORF Size: 1506 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_000199.2](#), [NP_000190.1](#)

RefSeq Size: 2770 bp

RefSeq ORF: 1509 bp

Locus ID: 6448

UniProt ID: [P51688](#)

Cytogenetics: 17q25.3

Domains: Sulfatase

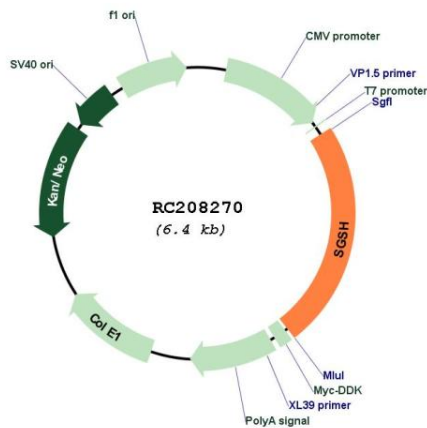
Protein Families: Druggable Genome

Protein Pathways: Glycosaminoglycan degradation, Lysosome, Metabolic pathways

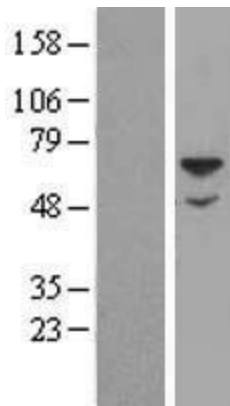
MW: 56.7 kDa

Gene Summary: This gene encodes the enzyme sulfamidase; one of several enzymes involved in the lysosomal degradation of heparan sulfate. Mutations in this gene are associated with the lysosomal storage disease mucopolysaccharidosis IIIA, also known as Sanfilippo syndrome A, which results from impaired degradation of heparan sulfate. Transcripts of varying sizes have been reported but their biological validity has not been determined. [provided by RefSeq, Jun 2017]

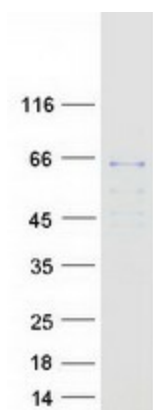
Product images:



Circular map for RC208270



Western blot validation of overexpression lysate (Cat# [LY424866]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208270 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SGSH protein (Cat# [TP308270]). The protein was produced from HEK293T cells transfected with SGSH cDNA clone (Cat# RC208270) using MegaTran 2.0 (Cat# [TT210002]).