

Product datasheet for **RG211521**

NDST4 (NM_022569) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDST4 (NM_022569) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NDST4
Synonyms:	N-HSST; N-HSST 4; NDST-4; NHSST4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211521 representing NM_022569
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAATCTTATTGTGAACTTCGGAGAAGTTTTCGAACATTGATTGTTCTCTTAGCTACCTTTTGCTTGG
 TGAGCATTGTCATTTCTGCCTATTTTCTCTACTCTGGCTACAAACAGGAAATGACTTATTGAAACCAC
 TGCAGAAGCAGAATGCACTGACATCAAAATTCTACCATATAGGTCAATGGAGCTGAAAACAGTTAAACCT
 ATTGACACATCCAAAACGGACCCTACTGTCTTCTCTCGTGGAGAGCCAATACTCTCAACTCGGTCAAG
 ATATCATAGCTATTTGGAGTCCAGCCGATTTCACTACCACATGGTTATTGCCCTGGAAAGGGAGATAT
 ACCTCCTCTTACAGATAATGGCAAAGGGAAATATACTTTAGTTATTTATGAAAATATTCTGAAGTATGTC
 AGCATGGACTCATGGAATCGAGAGCTTTAGAAAAATACTGTGTGAATACAGTGTAGTATAATCGGTT
 TTCATAAAGCCAATGAGAACAGCTTACCAAGTACACAATTAAGGCTTTCCGTTAAACCTTTTCAATAA
 TCTAGCTCTAAAGGACTGTTTTGTTAACCTCAATCTCCTTTGCTGCATATTACCAAAGCCCCAAGGTT
 GAGAAAGGCCCTCTTCTGGGGAAGACTGGACTATTTTCCAATATAATCATTCAACCTACCGCCTGTAC
 TTTAACTGAGTTACAGACAGAAAAATCCCTGTCACTCCTTGCTAGCAAAACACTCTTGAACCGGTGAT
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 AAGCTCATCTTATAGATGCCATCTCCTTCTTGTGAGGGAAGAGGCTGACATTGCTCTGGACAGGTACA
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 AAGTTTTACCACACAGGGACTGAAGAGGAAGATGAAGGAGATGACCTTTTACTTCGGTCTGTGGATGAGT
 TCTGGTGGTTTTCTCACATGTGGAGCCACATGCAGCCCCACTTCCACAACGAGTCACTTTTAGTAGA
 GCAGATGATTCTCAACAAGGAATTTGCACTGGAACATGGAATACCAATCAACATGGGCTATGCTGTGGCC
 CCACATCACTCAGGGTCTACCCGGTTCACATTCACTGTATGCAGCTTGGAAAGAAGTCTGGGGTATTC
 AAGTCACCAGCACTGAAGAATATCCACATCTGAAACCTGCCCGGTACAGAAAGGGCTTCACTCACAATAG
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 GGACCCCAAGAACTGGATAAAAGTATCAGAGGAGTGAACTTTTTCTCACAATCCTTCTAAACCCAATCA
 GCATTTTCATGACCCATTTATCAAATATGAAATGACCCGCTAGGGTTATATACCTTTGTGAACCTGGT
 CAACCTTTGTGAGAGCTGGACCAACCTGAAATGCAAACCTCTGCCTCCAGTGAACCTGGCCACCAGTAT
 TTTGAGCTCTTCCCTGAGCAGAAAGACCCTCTATGGCAGAATCCATGTGATGATAAACGACACAAAGACA
 TCTGGTCCAGAGAGAAAACCTTGTGACCCTTACCAAAATTTCTAGTAATTGGTCCACAAAAACAGGAAC
 AACTGCATTTATTTATTTCTTCTTATGCATCCTTCAATCATCAGCAATCTCCCTAGTCCAAAGACATTT
 GAGGAAGTTCAAGTTCTTTAATGGCAACAACATCACAAGGAATAGACTGGTATATGGACTTTTTCCCTA
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 AAGACGAGCCGCATCTTGTCCCAAAGCCAAGATCATCACCATCCTCATTGACCCCTCAGACAGGGCA
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 TACTACCGAGATCATAATGTGGAACATCCAAACTGCTACACAGACTGGGACAGCCTCTGCCATCGTGGC
 TGAGACAGGAACTGCAGAAAGTGA

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211521 representing NM_022569
 Red=Cloning site Green=Tags(s)

MNLIVKLRRSFRTLIVLLATFCLVSVISAYFLYSGYKQEMTLIETTAEAECTDIKILPYRSMELKTVKP
 IDTSKTDPTVLLFVESQYSQLGQDIIAILESSRFQYHMVIAPGKGDIPPLTDNGKGKYTLVIYENILKYV
 SMDSWNRELLEKYCVEYSVSIIGFHKANENSLPSTQLKGFPLNLFNNLALKDCFVNPQSPLLHITKAPKV
 EKGPLPGEDWTFIQYNHSTYQPVLLTELQTEKLSLSSKTLFATVIQDLGLHDLGIQRVLFGNNLFWLH
 KLIFIDAISFLSGKRLTSLDRYILVDIDDIFVGKEGTRMNVKDVKALLETQNLRLTQVANFTFNLGFSG
 KFYHTGTEEEDEGDDLRLRSVDEFWFFPHMWSHMOPHLFHNESSLVEQMILNKEFALEHGIPINMGYAVA
 PHHSGVYPVHIQLYAAWKVWGIQVTSTEEYPHLKPARYRKGFIHNSIMVLPRTQGLFTHTFYKEYPG
 GPQELDKSIRGGELFTILLNPI SIFMTHLSNYGNDRLGLYTFVNLVNFVQSWTNLKLQTLPPVQLAHQY
 FELFPEQKDWQNPCCDKRHKDIWSREKTCDHLPKFLVIGPQKTGTALYLFLLMHPSIISNLPSPKTF
 EEVQFFNGNHYHKIDWYMDFFPTPSNTTSDFLFEKSANYFHSEEAPRAASLVPKAKIITILIDPSDRA
 YSWYQHQRSHEDPAALRFNFYEIVSTGHWAPSDLKTLQRRCLVPGWYAVHIERWLT YFATSQLLIDGQQ
 LRSDPATVMDEVQKFLGVTPRYNYSEALTFDPQKGFWCQLLEGGKTKCLGKSKGRKYPMPDPESTRFLSN
 YYRDHNVELSKLLHRLGQPLPSWLRQELQKVR

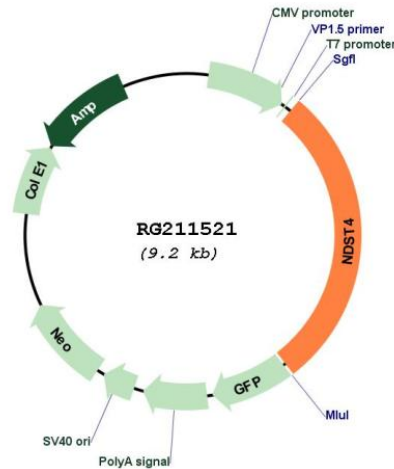
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_022569

ORF Size: 2616 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_022569.3](#)

RefSeq Size: 3359 bp

RefSeq ORF: 2619 bp

Locus ID: 64579

UniProt ID: [Q9H3R1](#)

Cytogenetics:	4q26
Protein Families:	Transmembrane
Protein Pathways:	Heparan sulfate biosynthesis, Metabolic pathways
Gene Summary:	Essential bifunctional enzyme that catalyzes both the N-deacetylation and the N-sulfation of glucosamine (GlcNAc) of the glycosaminoglycan in heparan sulfate. Modifies the GlcNAc-GlcA disaccharide repeating sugar backbone to make N-sulfated heparosan, a prerequisite substrate for later modifications in heparin biosynthesis. Has low deacetylase activity but high sulfotransferase activity (By similarity).[UniProtKB/Swiss-Prot Function]