

Product datasheet for **MG218546**

Ndst4 (NM_022565) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ndst4 (NM_022565) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ndst4
Synonyms:	4930439H17Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG218546 representing NM_022565
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATCTTATTTTAAAGTTTCGAAGAAGCTTTCGAACACTGATTGTTCTTAGCTACTTTTTGCTTGG
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 AGCATGGACTCATGGAACCGGGAGCTTTAGAAAAACTGTATAGAATACAGTGTAGCATAATTGGTT
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 CGTAGCTCTGAAGGACTGCTCTGTGAACCCCACTCTCTCTGCTCCATATTACCAAAGGCCCAAAGTT
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 TACTACCGCAGCCACAACGTGGAACCTCTCGAAGCTGCTGCACAGGCTGGGGCAGCCTCTGCCCTCGTGGC
 TGAGACAGGAGCTGCAGAAAGTGAGG

ACCGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG218546 representing NM_022565
Red=Cloning site Green=Tags(s)

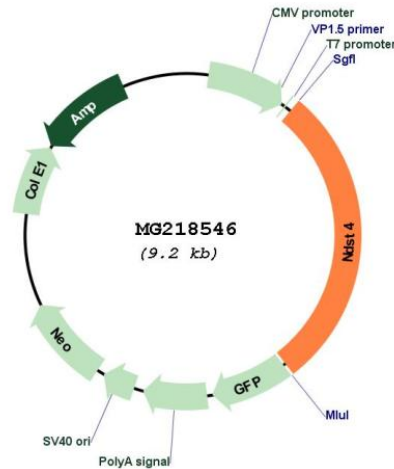
MNLILKFRRSFRTLIVLLATFCLVLSILISAYFLYSGYKQEMTLIETTAEAEACADIKDLPYRSIELRTIKP
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 SMDSWNRELLEKYCIEYSVSIIGFHKANENSLPTTQLKGFPLNLFNNVALKDCSVNPQSPDLLHITKPKV
 EKGPLPGEDWTFIQYNHSTYQPVLLTELQSEKLSFLSSQTLYATIIQDLGLHDGIQRVLFGNNLFWLH
 KLIFIDAI SFLSGKRLTSLDRYILVDIDDIFVGKEGTRMNVKDVKALLE TQNL LRTQVANFTFNLGFSG
 KFYHTGTEEEDEGDLLLRVDFWFWPHMWSHMOPHLFHNESSLVEQMILNKEFALEHGIPINLGYAVA
 PHHSGVYPVHIQLYA AWKKVWGIQVTSTEEYPHLKPARYRKGFIHNSIMVLPRTQCGLFTHTFYKEYPG
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 FELFPEQKDWQNPCCDKRHKDIWSREKTCDHLPKFLVIGPQKTGTALYLFLLMHPSIISNLPSPKTF
 EEVQFFNGNHYHKGIEWYMDFFPTPSNITSDFLFEKSANYFHSEEAPKRAASLVPKAKIITILIDPSDRA
 YSWYQHQRSHEDPAALRFNFYEYITTTGWAPPDLKTLQRRCLVPGWYAVHIERWLAYFSTSLLIIDGQQ
 LRSDPATVMDEVQKFLGVTPHYNYSEALTFDPQKGFWCQLLEGGKTKCLGKSKGRKYPMDSESRTFLSS
 YYRDHNVELSKLLHRLGQPLPSWLRQELQKVR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_022565

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_022565.2](#), [NP_072087.2](#)

RefSeq Size: 3489 bp

RefSeq ORF: 2619 bp

Locus ID: 64580

UniProt ID: [Q9EQW8](#)

Cytogenetics: 3 G1

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.[UniProtKB/Swiss-Prot Function]