

Product datasheet for **MG217209**

Ndst2 (NM_010811) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ndst2 (NM_010811) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ndst2
Synonyms:	Mndns; NDST-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG217209 representing NM_010811
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTCCAGCTGTGAAGGTGGTGCGCCCTGCTCGGCAACTGGAAGTGCACCCGCTCATACTGCTGCTGA
 TTGGTTTCAGTCTTGCTCCATGGGATTCTGGCTTACTACGTGTCCACCAGCCCCAAGGCCAAGGAACC
 CTTGCCTCTGCCCTTGGGAGACTGTAGTAGCAGTGGGGCAGCTGGCCCTGGCCCTGCACGGCCACCAGTC
 CCACCTCGACCCCAAAGGCCTCCAGAAACAACCGAACGGAACCTGTGGTCTTGTGTTGTGAAAGTG
 CATACTCACAACGGGGCAGGAGATTGTGGCCATCTTGAATCTAGTCGCTTTCGTTATAGCACTGAGCT
 AGCACCTGGCCGAGGGGATATGCCCACTGACTGATCATAACCCATGGCCGCTATGTCTTAGTCATCTAT
 GAGAACCTTCTAAAGTATGTGAACCTAGATGCCTGGAGCCGGAACTGCTGGACCCGCTACTGTGTGGAGT
 ATGGCGTGGGTATCATTGGCTTTTCCGAGCCCGGAGCACAGCCTGCTGAGTGGCCAGCTCAAGGGCTT
 TCCCTTTTCTACACTCAAACCTGGGGCTCCGGGACTACCAAGTGAATCCTTCCGCCCTCTACTACAT
 CTACCCGCCCTAGCCGCTGGAGCCAGGACCCTGCCTGGTGTGACTGGACCATCTCCAGTCCAATC
 ACAGCACTTATGAGCCCGTGTATTGGCAGCCATCGGCCAGCCGAGCTCTCCATGCCAGGACCAGTTCT
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 GGACATGGCCTTTCTTTTGGCTTACAAAATTGTTTTGTTGATGCTGTGTCATACCTACCCGGGAAGC
 GCCTCTGCCTGGACCTTGACCGCTACATCTTAGTAGATATCGATGACATCTTTGTGGCAAAGAAGGTAC
 TCGCATGAAGGTGGTGTGTTGAGGCTTGTGGACCACTCAGAACAACTCAGGACCTTAGTCCCCAAC
 TTCACCTTCAACTTGGGCTTCTCGGGCAAGTCTATCATACCCGGACAGAAGAGGAGGATGCTGGGGACG
 ACATGCTGCTGAAGCACCGCAGGAGTCTGGTGGTCCCTCACATGTGGAGCCACATGCAGCCACCT
 CTTCCACAACCGCTCTGTGCTAGCTGACCAGATGAGGCTCAACAAACAGTTTGCTTTGGAGCATGGGATT
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 ACGATCTTCTAATGAGTATCTGGAGTCTCGTGAAGTATCGAAGCATCCGAGGTGGAGAGCTCT
 TTCTGACAGTGTCTTAATCCGATCAGTGTCTTATGACCCATCTGTCAAACATGAAATGACCCGCT
 GGGCTGTACACCTTTGAGAGCCTGGTGCCTTCTCCAGTGTGGACACGACTGCGCTACAGACCCTT
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 AGCAGTTTTCCAGCCCCAGCACCTTTGAGGAGATTAGTTCTTCAATGGCCCTAATTACCACAAGGGGA
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 CACCTACTTTGACTCGGAGGTGTACCACGGCGGGGGCTGCCCTTCTGCCAAGAGCCAAGATAATCACT
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 CCAGGGCCTTGAAGGTGGTAAGACTCGTGTCTTGGGAGAAGCAAAGGCCGAGGTACCCAGACATGGAC
 ATGGAGTCTCGCTTTTCTTACGGATTTTCCGGAACCATAATTTGGAGCTATCAAAGCTGCTGAGTC
 GGCTTGGCCAGCCAGCCCTTGTGGCTTCGGGAAGAATTGCAACATTCAGTGTGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG217209 representing NM_010811
Red=Cloning site Green=Tags(s)

MLQLWKVVRPARQLELHRLILLIGFSLVSMGFLAYVSTSPKAKEPLPLPLGDCSSGAAGPGPARPPV
 PPRPQRPPEPTRTEPVVLVVFESAYSQLGQEIIVALESSRFRYSTELAPGRGDMPTLTDHTHGRYLVIIY
 ENLLKYVNLDAWSRELLDRYCVYGVGIIGFFRAREHSLLSAQLKGFPLFLHNSLGLRDYQVNPSPAPLLH
 LTRPSRLEPGPLPGDDWTFIQSNHSTYEPVLIASHRPAELSMGPGVLRARLPTVVQDLGLHDGIQVLF
 GHGLSFWLHKLVFVDAVAYLTGKRLCLDLDRYILVDIDDFVKGEGTRMKVADVEALLTTQNKLRTLVFN
 FTFNLGFSGKIFYHTGTEEDAGDDMLLKHRRFEWFFPHMWSHMQPHLFHNRSVLADQMRLNKQFALEHGI
 PTDLGYAVAPHHSGVYPIHSQLYEAWKSVWGIQVTSTEEYPHLRPARYRRGF IHNGIMVLPRQTCGLFTH
 TIFYNEYPGSRELDRSIRGGELFTVLLNPISVFMTHLSNYGNDRLGLYTFESLVRFLQCWTRLRLQTL
 PPVPLAQKYFELFPQERSPLWQNPCDDKRHKDIWSKEKTCDRLPKFLIVGPQKTGTTAIHFFLSLHPAVT
 SSFSPSTFEEIQFFNGPNYHKIDWYMDFFPVPSNASTDFLFEKSATYDFSEVVPRRGAALLPRAKIIIT
 VLINPADRAYSWYQHQRAGDPIALNYTFYQVISASSQAPLLLRSLQNRCLVPGYYSTHLQRWLTYYPSG
 QLLIMDGQELRVNPAASMEIIQKFLGITPFLNYTRTLRFDEDKGFWCQGLEGGKTRCLGRSKGRRYPDMD
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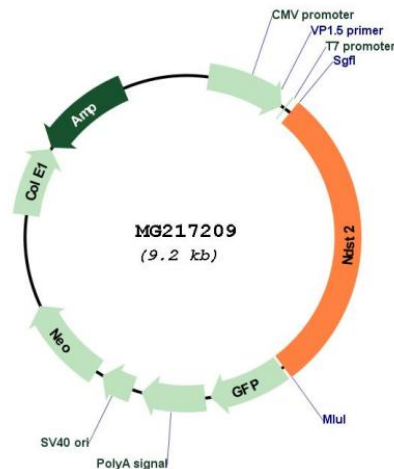
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_010811

ORF Size: 2649 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_010811.2](#), [NP_034941.2](#)

RefSeq Size: 3907 bp

RefSeq ORF: 2652 bp

Locus ID: 17423

UniProt ID: [P52850](#)

Cytogenetics: 14 A3

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. Plays a role in determining the extent and pattern of sulfation of heparan sulfate. Required for the exosomal release of SDCBP, CD63 and syndecan (By similarity).[UniProtKB/Swiss-Prot Function]