

Product datasheet for **RC221638**

NDST1 (NM_001543) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDST1 (NM_001543) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NDST1
Synonyms:	HSST; MRT46; NST1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221638 representing NM_001543
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTGCCTGGCATGCCTCCGGAGGCTGTGTGGCACGTGCCCGCAGGCTGTCTTTCTCTGTGT
 TCATCTTCTGCCTGTTTCAGCGTTTTTCATCTCGGCCTACTACCTATATGGCTGGAAGCGAGGCTGGAGCC
 CTCGGCGGATGCCCCGAGCCTGACTGCGGGGACCCGCCCTGTGGCCCCAGTCGCTGCTGCCACTC
 AAGCCTGTGCAGGCAGCCACCCCTTCCCGCACAGACCCGTTGGTGTGGTCTTTGTGGAGAGCCTTACT
 CGCAACTGGGCCAGGAGGTGGTGGCCATCTGGAGTCCAGCCGCTTCAAATACCGCACAGAGATTGCGCC
 GGGCAAGGGTGACATGCCACGCTCACTGACAAGGGCCGTGGCCGCTTCGCCCTCATCATATGAGAAC
 ATCCTCAAGTATGTCAACCTGGACGCTGGAACCGGGAGCTGCTGGACAAGTACTGTGTGGCCTACGGCG
 TGGGCATCATTGGCTTCTCAAGGCCAATGAGAACAGCCTGCTGAGTGGCAGCTCAAGGGCTTCCCCT
 GTTCTGCACTCAAACCTGGGCCTGAAGGACTGCAGCATCAACCCCAAGTCCCCGCTGCTCTACGTGACG
 CGACCTAGCGAGGTGGAGAAAGTGTGCTCCCCGGCAGGACTGGACGGTTTTCCAGTCAAATCACTCCA
 CCTATGAGCCAGTGTGCTGGCCAAGACGCGCTCGTCTGAGTCCATCCCACACCTGGGCGCAGACGCCGG
 CCTGCATGCTGCACTGCACGCCACTGTGGTCCAGGACCTGGGCTGCACGACGGCATCCAGCGCGTGTG
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 AACTTCACCTTCAACCTGGGCTACTCAGGAAAATCTTCCACACAGGTACCAATGCTGAGGACGCTGGGG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221638 representing NM_001543
 Red=Cloning site Green=Tags(s)

MPALACLRRLLCRHVSPQAVLFLLFIFCLFSVVISAYLYGWKRGLEPSADAPEPCDGDPPPVPASRLLPL
 KPVQAATPSRTDPLVLFVESLSQLGQEVVAILESSRFKYRTEIAPGKGDMPRTLTDKGRGRFALIIYEN
 ILKYVNLDAWNRELLDKYCVAYGVGIIIGFFKANENSLLSAQLKGFPLFLHNSLGLKDCSINPKSPLLYVT
 RPSEVEKGLPGEDWTVFQSNHSTYEPVLLAKTRSSSEIPHLGADAGLHAALHATVVQDLGLHDGIQRVL
 FGNLNFWLHKLVFVDAVAFLTGKRLSLPLDRYILVDIIDDIFVGKEGTRMKVEDVKALFDTQNELRAHIP
 NFTFNLYGSGKFFHTGTNAEDAGDLLLLSYVKEFWFPHMWSHMOPHLFHNQSVLAEQMALNKKFAVEHG
 IPTDMGYAVAPHHSGVYPVHVQLYEAWKQVWSIRVTSTEEYPHLKPARYRRGFHNGIMVLPRTQGLFT
 HTIFYNEYPGSSSELDKIINGGELFLTVLLNPISIFMTHLSNYGNDRLGLYTFKHLVRFHLSWTNLRQT
 LPPVQLAQKYFQIFSEEKPLWQDPCEDKRHKDIWSKEKTCDRFPKLLIIGPQKTGTALYLFLGMHPDL
 SSNYPSETFEEIQFFNGHNYHKIDWYMEFFPIPSNTTSDFYFEKSANYFDSEVAPRRAAALLPKAKVL
 TILINPADRAYSWYQHQRADDPVALKYTFHEVITAGSDASSKLRALQNRCLVPGWYATHIERWLSAYHA
 NQILVLDGKLLRTEPAKVMVMVQKFLGVTNTIDYHKTLAFDPKKGFWCQLLEGGKTKCLGKSKGRKYP
 EMDLDSRAFLKDYRDHNIELSKLLYKMGQTLPTWLRDLQNT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6676_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

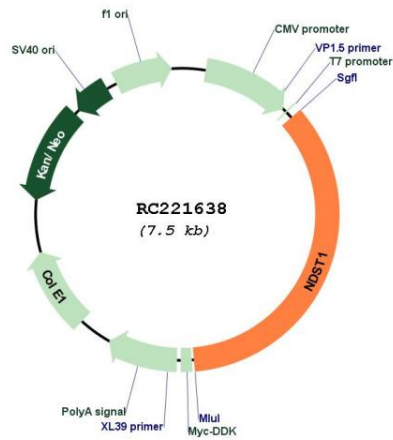
Cloning sites used for ORF Shuttling:



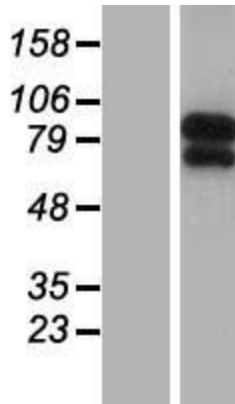
* The last codon before the Stop codon of the ORF

ACCN:	NM_001543
ORF Size:	2646 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:	<ol style="list-style-type: none">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_001543.5
RefSeq Size:	7913 bp
RefSeq ORF:	2649 bp
Locus ID:	3340
UniProt ID:	P52848
Cytogenetics:	5q33.1
Domains:	Sulfotransfer
Protein Families:	Transmembrane
Protein Pathways:	Heparan sulfate biosynthesis, Metabolic pathways
MW:	100.7 kDa
Gene Summary:	This gene encodes a member of the heparan sulfate/heparin GlcNAc N-deacetylase/ N-sulfotransferase family. The encoded enzyme is a type II transmembrane protein that resides in the Golgi apparatus. The encoded protein catalyzes the transfer of sulfate from 3'-phosphoadenosine 5'-phosphosulfate to nitrogen of glucosamine in heparan sulfate. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]

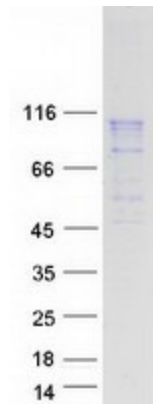
Product images:



Circular map for RC221638



Western blot validation of overexpression lysate (Cat# [LY419873]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221638 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDST1 protein (Cat# [TP321638]). The protein was produced from HEK293T cells transfected with NDST1 cDNA clone (Cat# RC221638) using MegaTran 2.0 (Cat# [TT210002]).