

Product datasheet for **RG220394**

MAN2A2 (NM_006122) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MAN2A2 (NM_006122) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MAN2A2
Synonyms: MANA2X
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG220394 representing NM_006122
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGCTGAAAAAGCAGGTGACAGTGTGTGGGGCTGCCATCTTCTGTGTGGCAGTCTTCTCGCTTACC
 TCATGCTGGACCGAGTGAACACGATCCCACCCGACACCAGAATGGTGGGAATCCCCGGAGCCAAAT
 TTCTGTGCTGCAGAACCATTGAGCAGCTGGAGCAGCTTTTGGAGGAGAACCATGAGATTATCAGCCAT
 ATCAAGGACTCCGTGCTGGAGCTGACAGCAACGCAGAGGGCCCCCGCCATGTCGCCCTACTACACGG
 TCAATGGCTCCTGGGTGGTGCCACCGGAGCCCCGCCCAGCTTCTCTCCATCTCCCCGAGGACTGCCA
 GTTTGCTTTGGGGGGCCGGGGTCAAGGCCAGAGCTGCAGATGCTCACTGTGTGGAGGAGCTGCCGTTT
 GACAACGTGGATGGTGGTGTGTGGAGGCAAGGCTTCGACATCTCCTACGACCCGACGACTGGGATGCTG
 AAGACCTGCAGGTGTTTGTGGTGCCCACTCTCACAAATGACCCAGGCTGGATCAAGACCTTTGACAAGTA
 CTACACAGAGCAGACCCAACACATCCTCAATAGCATGGTGTCTAAGTGCAGGAGGACCCCCGGCGCGC
 TTCCTCTGGGCAGAGGTCTCCTTCTCGCAAGTGGTGGGACAACATCAATGTCCAAAAGAGAGCGGCAG
 TCCGAAGGCTGGTGGAAACGGGCAGCTGGAGATTGCGACAGGAGGCTGGGTGATGCCAGATGAGGCCAA
 TTCCCCTACTTTGCATTGATTGACCAGCTCATCGAAGGACACCAGTGGCTGGAGAGAAATCTTGGTGCA
 ACCCCCCGCTCTGGCTGGGCAGTGGACCCCTTTGGATACAGCTCCACCATGCCTTACCTGTGCCCGT
 CCAACCTCACCAGCATGCTGATTCAAGAGAGTGCACTATGCCATCAAGAAGCACTTTGCTGCCACCCACAG
 CCTAGAGTTCATGTGGAGGCAGACATGGGACTCGGACTCCAGCACAGACATCTTCTGTACATGATGCC
 TTCTACAGCTATGACGTCCCCATACCTGTGGCCAGATCCCAAGATCTGCTGCCAATTTGATTTCAAAC
 GCCTGCCTGGTGGGCGCATCAACTGCCCTTGAAGGTGCCACCCCGGCCATCACAGAGGCCAACGTGGC
 AGAGAGGGCAGCCCTGCTTCTGGACCAATACCGGAAGAAGTCCCAGCTGTTCCGAAGCAACGTCTCTCTG
 GTGCTCTTGGAGATGACTTCCGATATGACAAGCCCCAGGAGTGGGATGCCAGTTCTTCAACTACCAAC
 GGCTCTTTGACTTCTTCAACAGCAGGCTAACCTCCATGTGCAGGCCAGTTTGGCACTCTTTCTGACTA
 TTTTGATGCCCTGTACAAGAGGACAGGGTGGAGCCAGGGCCCCGCCCTCCAGGTTTCTGTGCTGAGC



GGGGATTTCTTCTCCTATGCGGACCGGGAGGATCATTACTGGACAGGCTATTACACTTCCCAGCCCTTCT
ACAAGAGCTTAGACCGAGTCTTGAAGCCACCTGCGGGGGCAGAGGTTCTGTACAGCCTGGCTGCAGC
TCACGCTCGCCGCTCTGGTCTGGCTGGCCGGTACCCACTGTCTGATTTACCCCTCCTGACGGAAGCTCGG
CGCACATTGGGGCTCTCCAGCATCACGATGCCATCACTGGCACGGCCAAGGAGGCTGTGGTGGTGGACT
ATGGGGTCAGGCTTCTGCGCTCCCTGTCAACCTGAAGCAGGTATCATTATGCAGCCCACTATCTGGT
GCTGGGGGACAAGGAGACCTACCACTTTGACCCTGAGGGCCCTTCTCCAAGTGGATGACACTGCCTTA
AGTCACGAGCCCTCCAGAGCGCAGGTGATCCAGCTGGATTCCCTCGCCAGGTTTGTGGTCTTCA
ACCCACTGGAACAGGAGCGATTACAGCATGGTGTCCCTGCTGGTCAACTCTCCCGCGTGCCTGCTTTT
GGAGGAGGCTCAGCCCTGGCCGTGCAGATCAGCGCACACTGGAGCTCTGCCACCGAGGCGGTCCCTGAC
GTCTACCAGGTGTCTGTGCCTGTCCGCTGCCAGCCCTGGGCTGGGCGTGTGCAGCTACAGCTGGGCC
TGGATGGGCACCGCAGCTGCCCTCCTGTGCGCATCTACCTGCACGGCCGGCAGCTGTCCGTCAGCAG
GCACGAAGCGTTTCTCTCCGTGTCATTGACTCTGGCACAGCGACTTCGCCCTCAGCAACCGCTACATG
CAGGTCTGGTTCTCAGGCCTTACTGGGCTCTCAAGAGCATCCGAAGGTTGGATGAGGAGCAGGAGCAGC
AGGTGGACATGCAGGTCCTTGTCTATGGCACCCGTACGTCCAAAGACAAGAGTGGAGCCTACCTCTTCT
GCCCGATGGCGAGGCCAAGCCCTACGTCCCAAGGAGCCCCCGTGTGCGTGTCACTGAAGGCCCTTTC
TTCTCAGAGGTGGTTGCGTACTATGAGCACATTACCAGGCGGTCCGGCTTTACAATCTGCCAGGGGTGG
AGGGGCTGTCTCTGGACATATCATCCCTGGTGGACATCCGGGACTACGTCAACAAGGAGCTGGCCCTGCA
CATCCATACAGACATCGACAGCCAGGATCTTCTTACAGACCTCAATGGCTTTCAGGTGCAGCCCGCA
CGGTATCTGAAGAAGCTCCCCCTCCAGGCCAATTCTACCCCATGCCAGTCATGGCCTATATCCAGGACG
CACAGAAGCGCCTCACGCTGCACACTGCCAGGCCCTGGGTGTCTTAGCCTCAAAGATGGCCAGCTGGA
GGTGATCTTGGACCGCGGCTGATGCAGGATGACAACCGGGCCCTAGGCCAAGGGCTCAAGGACAACAAG
AGAACCTGCAACCGTTTCCGCTCCTGTAGAGCGGCGAACCGTGGCAGTGAGGTCCAAGATAGCCACT
CTACCAGTACCCATCCCTCCTCAGCCACCTGACCTCCATGTACCTGAACGCCCGGCGCTCGCTCTGCC
TGTAGCCAGGATGCAGCTCCAGGCCCTGGTCTGCGCTATTTATCCTCTGGCTTCTCACTGCCCTGT
GACTTCCACCTGTCAACCTACGTACGCTCCAGGCTGAGGAGGACACCCTACCCTCGGCGGAGACCGCAC
TCATCTTACACCGCAAGGGTTTTGACTGCGGCTGGAGGCCAAGAATTGGGCTTCAACTGCACCACAAG
CCAAGGCAAGGTAGCCCTGGGCAGCCTTTTCCATGGCCTGGATGTGGTATTCTTACGCCAACCTCCTTG
ACGTTACTGTACCCTCTGGCCTCCCGTCCAACAGCACTGACGTCTATTTGGAGCCCATGGAGATTGCTA
CCTTTCGCTCCGCTGGGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

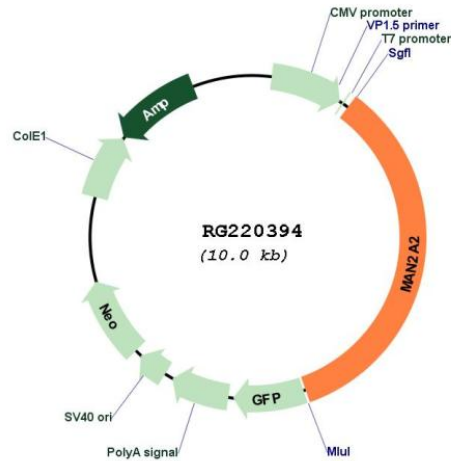
Protein Sequence: >RG220394 representing NM_006122
 Red=Cloning site Green=Tags(s)

MKLKKQVTVCGAAIFCVAVFSLYLMLDRVQHDPTRHQNGGNFPRSQISVLQNRIEQLEQLLEENHEIISH
 IKDSVLELTANAEGPPAMLPYYTVNGSWVVPPEPRPSFSISPQDCQFALGGRGQKPELQMLTVSEELPF
 DNVDDGGVWRQGFDISYDPHDWAEDLQVFVPHSHNDPGWIKTFDKYYTEQTQHILNSMVSKLQEDPRRR
 FLWAEVSFFAKWWDNINVQKRAAVRRLVGNQLEIATGGWVMPDEANSHYFALIDQLIEGHQWLERNLGA
 TPRSGWAVDPFGYSSTMPYLLRRANLTSMLIQRVHYAIKKHFAATHSLEFMWRQTWSDSDSDIFCHMMP
 FYSYDVPHTCGPDPKICCOQDFKRLPGGRINCPWKVPPRAITEANVAERAALLLDQYRKKSQVFRSNVLL
 VPLGDDFRYDKPQEWDAQFFNYQRLDFDFNSRPNLHVQAQFGTLDSDYFDALYKRTGVEPGARPPGFPVLS
 GDFFSYADREDHYWTGYYSRPFYKSLDRVLEAHLRGAEVLYSLAAAHARRSGLAGRYPLSDFTLTTEAR
 RTLGLFQHDAITGTAKEAVVDYGVRLRLSLVNLKQVIHAAHYLVLGDKETYHFDPEAPFLQVDDTRL
 SHDALPERTVIQLDSSPRFVLFNPLEQERFSMVSLLVNSPRVRVLSSEGGPLAVQISAHWSSATEAVPD
 VYQVSVVRLPALGLGVLQLQLGLDGHRTLPSVRIYHLHGRQLSVSRHEAFPLRVIDSGTSDFALSNRYM
 QVWFSGLTGLLKSIRRVDEEHEQQVDMQVLYVGTTRT SKDKSGAYLFLPDGEAKPYVPKEPPVLRVTEGPF
 FSEVVAYYEHQHAVRLYNLPGVEGLSLDISSLVDIRDYVNKELALHIHTDIDSQGIFFDLNGFVQVPR
 RYLKPLQANFYPMVMAYIQDAQKRLTLHTAQALGVSSLDKGQLEVIDRRLMQDDNRGLGQGLKDNK
 RTCNFRLLLERRTVGSEVQDSHSTSYPSLLSHLTSMYLNAPALALPVARMQLPGPGLRSFHLASSLPC
 DFHLLNRLTLQAEEDTLPSAETALILHRKGFDCGLEAKNLGFNCTTSQGKVALGSLFHGLDVVFLQPTSL
 TLLYPLASPSNSTDVYLEPMEIATFRLRLG

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfi-MluI
 Cloning Scheme:



Plasmid Map:


ACCN: NM_006122

ORF Size: 3450 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_006122.4](#)

RefSeq Size: 6279 bp

RefSeq ORF: 3453 bp

Locus ID: 4122

UniProt ID: [P49641](#)

Cytogenetics: 15q26.1

Domains:	Glyco_hydro_38
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, N-Glycan biosynthesis
Gene Summary:	Catalyzes the first committed step in the biosynthesis of complex N-glycans. It controls conversion of high mannose to complex N-glycans; the final hydrolytic step in the N-glycan maturation pathway.[UniProtKB/Swiss-Prot Function]