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Product datasheet for RG200638

MAN2B1 (NM_000528) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAN2B1 (NM_000528) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAN2B1
Synonyms:	LAMAN; MANB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG200638 representing NM_000528
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCGCCTACGCGCGGGCTTCGGGGGTCTGCGCTCGCGGCTGCCTGGACTCAGCAGGCCCCTGGACCA
TGTCCCGCGCCCTGCGGCCACCGCTCCCGCCTCTCTGCTTTTTCCTTTTGTTGCTGGCGGCTGCCGGTGC
TCGGGCCGGGGGATACGAGACATGCCCCACAGTGCAGCCGAACATGCTGAACGTGCACCTGCTGCCTCAC
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ACGCCGGTGTGCAGTACATCCTGGACTCGGTCATCTCTGCCTTGCTGGCAGATCCCACCCGTCGCTTCAT
TTACGTGGAGATTGCCTTCTTCTCCCGTTGGTGGCACCAGCAGACAAATGCCACACAGGAAGTCGTGCGA
GACCTTGTGCGCCAGGGGCGCCTGGAGTTCGCCAATGGTGGCTGGGTGATGAACGATGAGGCAGCCACCC
ACTACGGTGCCATCGTGGACCAGATGACACTTGGGCTGCGCTTTCTGGAGGACACATTTGGCAATGATGG
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GACCCTCGCAGCCCCGAGTACAACGCCAAGGAGCTGGTCGATTACTTCCTAAATGTGGCCACTGCCCAGG
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AGGCTGGGGGCCTTGCGAGGTTCTTCTGAGCAACGCGCTGGCGCGGCTCAGAGGCTTCAAAGATCACTTC

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ACCTTTTGCCAACAGCTAAACATCAGCATCTGCCCGCTCAGCCAGACGGCGGCGCGCTTCCAGGTCATCG
TTTATAATCCCCTGGGGCGGAAGGTGAATTGGATGGTACGGCTGCCGGTCAGCGAAGGCGTTTTCGTTGT
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CGCCACCTGGTGCTGCTGGACACAGCCCAGGCTGCAGCCGCCGGACACCGGCTCCTGGCGGAGCAGGAGG
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GCAGTTCTCAGGGCTGCGCAGGGACCTGCCGCCCTCGGTGCACCTGCTCACGCTGGCCAGCTGGGGCCCC
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GGCCAACCAGCTCCGCGAGGCAGCCTCCAGGCTCAAGTGGACAACAAACACAGGCCCCACACCCCACCAA
ACTCCGTACCAGCTGGACCCGGCCAACATCACGCTGGAACCCATGGAAATCCGCACTTTCCTGGCCTCAG
TTCAATGGAAGGAGGTGGATGGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200638 representing NM_000528
Red=Cloning site Green=Tags(s)

MGAYARASGVCARGCLDSAGPWTMSRALRPPLPPLCFFLLLLAAAGARAGGYETCPTVQPNMLNVHLLPH
THDDVGWLKTVDQYFYGIKNDIQHAGVQYILDSVISALLADPTRRFIYVEIAFFSRWWHQQTNATQEVVR
DLVRQGRLEFANGGWVMNDEAATHYGAIVDQMTLGLRFLEDTFGNDGRPRVAWHIDPFGHSREQASLFAQ
MGFDGFFFGRLDYQDKWVRMQKLEMEQVWRASTSLKPPTADLFTGVLPNGYNPPRNLCWDVLCVDQPLVE
DPRSPEYNAKELVDYFLNVATAQGRYYRTNHTVMTMGSDFQYENANMWFKNLDKLIRLVNAQQAKGSSVH
VLYSTPACYLWELNKANLTWSVKHDDFFPYADGPHQFWTGYFSSRPALKRYERLSYNFLQVCNQLEALVG
LAANVGPYGSGDSAPLNEAMAVLQHHDAVSGTSRQHVANDYARQLAAGWGPCEVLLSNALARLRGFKDHF
TFCQQLNISICPLSQTAARFQVIVYNPLGRKVNWMVRLPVSEGVFVVKDPNGRTVPSDVVIFPSSDSQAH
PPELLFSASLPALGFSTYSVAQVPRWKPQARAPQPIPRRSWSPALTIENEHIRATFDPDTGLLMEIMNMN
QQLLLPVRQTFFWYNASIGDNESDQASGAYIFRPNQQKPLPVSRWAQIHLVKTPLVQEVHQNFSAWCSQV
VRLYPGQRHLELEWSVGPIPVGDTWGKEVISRFDTPLETKGRFYTDSNGREILERRRDYRPTWKLNQTEP
VAGNYYPVNTRIYITDGNMQLTVLTDRSQGGSSLRDGSLELMVHRRLLKDDGRGVSEPLMENGSGAWVRG
RHLVLLDTAQAAAAGHRLLAEQEVLAPQVVLAPGGGAAYNLGAPPRTQFSGLRRDLPPSVHLLTLASWGP
EMVLLRLEHQFAVGEDSGRNLSAPVTLNLRDLFSTFTITRLQETTLVANQLREAASRLKWTTNTGPTPHQ
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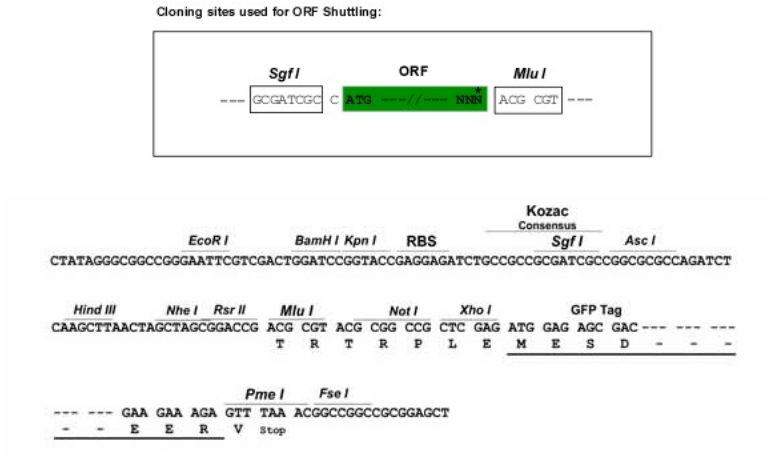
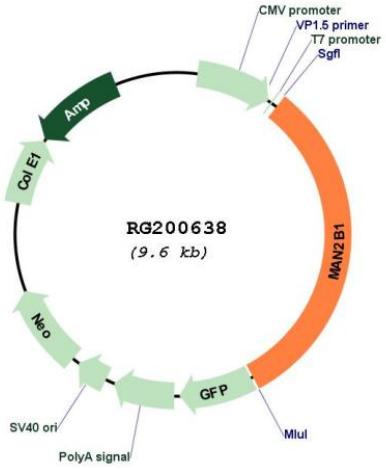
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_000528

ORF Size: 3033 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_000528.4
RefSeq Size:	3468 bp
RefSeq ORF:	3036 bp
Locus ID:	4125
UniProt ID:	O00754
Cytogenetics:	19p13.13
Domains:	Glyco_hydro_38
Protein Families:	Druggable Genome
Protein Pathways:	Lysosome, Other glycan degradation
Gene Summary:	This gene encodes an enzyme that hydrolyzes terminal, non-reducing alpha-D-mannose residues in alpha-D-mannosides. Its activity is necessary for the catabolism of N-linked carbohydrates released during glycoprotein turnover and it is member of family 38 of glycosyl hydrolases. The full length protein is processed in two steps. First, a 49 aa leader sequence is cleaved off and the remainder of the protein is processed into 3 peptides of 70 kDa, 42 kDa (D) and 13/15 kDa (E). Next, the 70 kDa peptide is further processed into three peptides (A, B and C). The A, B and C peptides are disulfide-linked. Defects in this gene have been associated with lysosomal alpha-mannosidosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Mar 2010]