

Product datasheet for RC200638

MAN2B1 (NM_000528) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAN2B1 (NM_000528) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MAN2B1
Synonyms:	LAMAN; MANB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200638 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCGCCTACGCGGGGCTTCGGGGTCTGCGCTCGCGGCTGCCTGGACTCAGCAGGCCCTGGACCA
TGTCCCGCGCCCTGCGGCCACCGCTCCCGCTCTCTGCTTTTTCTTTTGTGCTGGCGGCTGCCGTGC
TCGGGCGGGGATACGAGACATGCCCCACAGTGCAGCCGAACATGCTGAACGTGCACCTGCTGCCTCAC
ACACATGATGACGTGGGCTGGCTAAAACCGTGGACCAGTACTTTTATGGAATCAAGAATGACATCCAGC
ACGCCGTGTGCAGTACATCCTGGACTCGGTATCTCTGCTTGTGGCAGATCCACCCGTCGTTTCAT
TTACGTGGAGATTGCCTTCTTCTCCCGTTGGTGGCACCAGCAGACAAATGCCACACAGGAAGTCGTGCGA
GACCTTGTGCGCCAGGGCGCCTGGAGTTCGCCAATGGTGGCTGGGTGATGAACGATGAGGCAGCCACCC
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TCCCAATGGTTACAACCCGCCAAGGAATCTGTGCTGGGATGTGCTGTGTGTCGATCAGCCGCTGGTGGAG
GACCCCTGCAGCCCCGAGTACAACGCCAAGGAGCTGGTCGATTACTTCTAAATGTGGCCACTGCCCAGG
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AGCATCAGACGCGTACGCGGCACCTCCGCCAGCAGTGGCCAACGACTACGCGGCCAGCTTCCGGC
AGGCTGGGGCCTTTCGAGGTTCTCTGAGCAACGCGCTGGCGCGCTCAGAGGCTTCAAAGTCACTTC



ACCTTTTGCCAACAGCTAAACATCAGCATCTGCCCGCTCAGCCAGACGGCGGCGCTTCCAGGTCATCG
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 GAAGGACCCCAATGGCAGGACAGTGCCAGCGATGTGGTAATATTTCCAGCTCAGACAGCCAGGCGCAC
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 CGAAAAATGAGCACATCCGGGCAACGTTTGATCCTGACACAGGGCTGTTGATGGAGATTATGAACATGAAT
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 GATCCACCTGGTGAAGACACCCTTGGTGCAGGAGTGCACCAGAACTTCTCAGCTTGGTGTCCAGGTG
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 GGCCAACCAGTCCGCGAGGACGCTCCAGGCTCAAGTGGACAACAAACAGGCCCCACACCCACCAA
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 TTCAATGGAAGGAGGTGGATGGT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200638 protein sequence
 Red=Cloning site Green=Tags(s)

MGAYARASGVCARGCLDSAGPWTMSRALRPPLPPLCFLLLLAAAGARAGGYETCPTVQPMLNVHLLPH
 THDDVGLKTVQYFYGIKNDIQHAGVQYILDSVISALLADPTRRFIYVEIAFFSRWWHQQTNATQEVVR
 DLVQRGRLEFANGGWVMNDEAATHYGAIVDQMTLGLRFLEDTFGNDGRPRVAWHIDPFGHSREQASLFAQ
 MGFDFGFFGRLDYQDKWVRMQKLEMEQVWRASLKPPTADLFTGVLPNGYNPPRNLCDVLCVDQPLVE
 DPRSPEYNAKELVDYFLNVATAQGRYYRTNHTVMTMGSDFYENANMWFKNLDKLIRLVNAQQAKGSSVH
 VLYSTPACYLWELNKANLTWSVKHDDFFPYADGPHQFWTGYFSSRPALKRYERLSYNFLQVCNQLEALVG
 LAANVGPYSGDSAPLNEAMAVLQHHDVSGTSRQHVANDYARQLAAGWGPCEVLLSNALARLRGFKDHF
 TFCQQLNISICPLSQTAAARFQVIYVNPLGRKVNMMVRLPVSEGVFVVKDPNGRTVPSDVVIFPSSDSQAH
 PPELLFSASLPALGFSTYSVAQVPRWKQARAPQPIPRRSWSPALTIENEHIRATFDPTDGLLMEIMNMN
 QQLLLPVRQTFWYNASIGDNESDQASGAYIFRPNQKPLPVSRAQIHLVKTPLVQEVHQNFSAWCSQV
 VRLYPGQRHLELEWSVGPVPGDWTGKEVISRFDTPLETGKRFYTDNREILERRRDYRPTWKLNQTEP
 VAGNYYPVNTRIYITDGNMQLTVLTDRSQGGSSLRDGSLELMVHRRLKDDGRGVSEPLMENGSGAWVRG
 RHLVLLDQAQAAAAGHRLLAEQEVLAPQVVLAPGGGAAYNLGAPPRTQFSGLRRLDPPSVHLLTLASWGP
 EMVLLRLEHQFVAGEDSGRNLAPVTLNLRDLFSTFTITRLQETTLVANQLREAAASRLKWTNTGPTPHQ
 TPYQLDPANITLPEMEIRTFILASVQWKEVDG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6715_a11.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

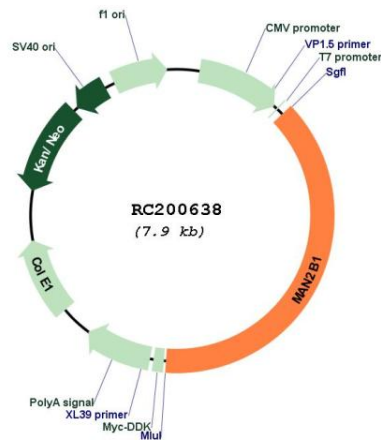
RefSeq: [NM_000528.4](#)

RefSeq Size: 3231 bp

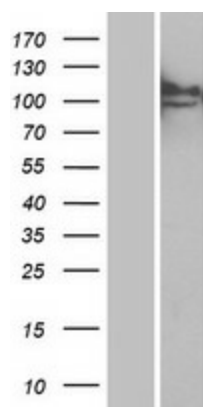
RefSeq ORF: 3036 bp
Locus ID: 4125
UniProt ID: [O00754](#)
Cytogenetics: 19p13.13
Domains: Glyco_hydro_38
Protein Families: Druggable Genome
Protein Pathways: Lysosome, Other glycan degradation
MW: 113.7 kDa

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]

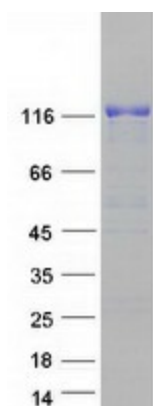
Product images:



Circular map for RC200638



Western blot validation of overexpression lysate (Cat# [LY424654]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200638 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAN2B1 protein (Cat# [TP300638]). The protein was produced from HEK293T cells transfected with MAN2B1 cDNA clone (Cat# RC200638) using MegaTran 2.0 (Cat# [TT210002]).