

Product datasheet for RC210203

ABO (NM_020469) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABO (NM_020469) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABO
Synonyms:	A3GALNT; A3GALT1; GTB; NAGAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210203 representing NM_020469. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
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TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Protein Sequence: >Peptide sequence encoded by RC210203
 Blue=ORF Red=Cloning site Green=Tag(s)

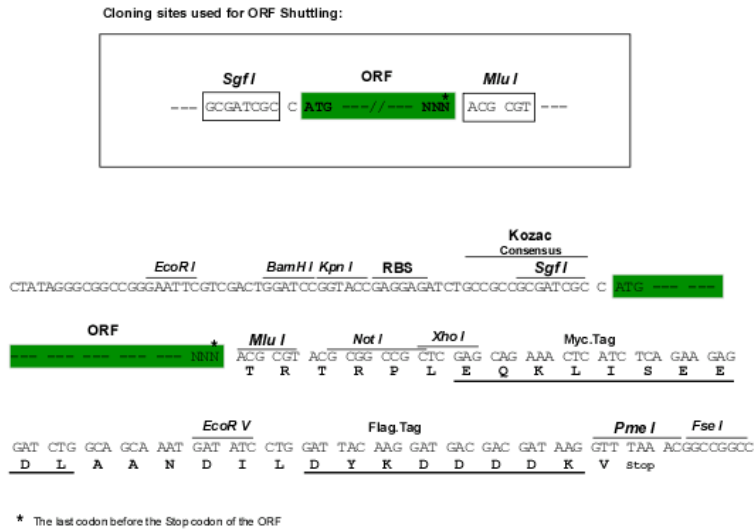
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 KHFMVGHVRVHYVFTDQPAAVPRVTLGTGRQLSVLEVGAYKRWDVSMRRMEMISDFCERRFLSEVDYL
 VCVDVDMEFRDHVGEILTPLFGTLHPSFYGSSREAFYERRPQSQAYIPKDEGDFYYMGAFFGGSVQE
 VQRLTRACHQAMMVDQANGIEAVWHDESHLNKYLLRHKPTKVLSPPEYLWDQQLLWPAVLRLRFTAVP
 KNHQAVRNP
 TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Recombinant protein using RC210203 also available, [TP310203](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6375_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020469

ORF Size: 1062 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_020469.3](#)

RefSeq Size: 1580 bp

RefSeq ORF: 1065 bp

Locus ID: 28

UniProt ID: [P16442](#)

Cytogenetics: 9q34.2

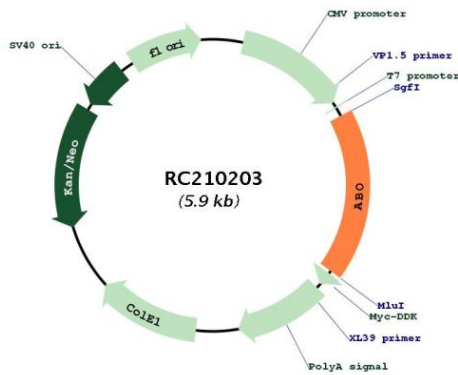
Protein Families: Secreted Protein, Transmembrane

Protein Pathways: Glycosphingolipid biosynthesis - lacto and neolacto series, Metabolic pathways

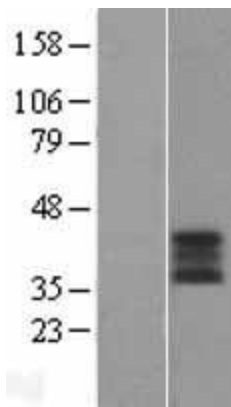
MW: 40.9 kDa

Gene Summary: This gene encodes proteins related to the first discovered blood group system, ABO. Variation in the ABO gene (chromosome 9q34.2) is the basis of the ABO blood group, thus the presence of an allele determines the blood group in an individual. The 'O' blood group is caused by a deletion of guanine-258 near the N-terminus of the protein which results in a frameshift and translation of an almost entirely different protein. Individuals with the A, B, and AB alleles express glycosyltransferase activities that convert the H antigen into the A or B antigen. Other minor alleles have been found for this gene. This locus has been identified as a susceptibility locus for severe coronavirus disease 2019 (COVID-19) by genome-wide association study. [provided by RefSeq, Aug 2020]

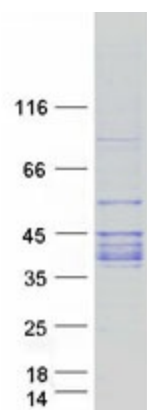
Product images:



Circular map for RC210203



Western blot validation of overexpression lysate (Cat# [LY412440]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210203 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ABO protein (Cat# [TP310203]). The protein was produced from HEK293T cells transfected with ABO cDNA clone (Cat# RC210203) using MegaTran 2.0 (Cat# [TT210002]).