

Product datasheet for **RG210203**

ABO (NM_020469) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABO (NM_020469) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ABO
Synonyms:	A3GALNT; A3GALT1; GTB; NAGAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210203 representing NM_020469 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGAGGTGTTGCGGACGCTGGCCGAAAACCAAAATGCCACGCACTTCGACCTATGATCCTTTTCC
TAATAATGCTTGTCTTGGTCTTGGTTACGGGCTCCTAAGCCCCAGAAGTCTAATGCCAGGAAGCCT
GGAACGGGGTCTGCATGGCTGTAGGGAACCTGACCATCTGCAGCGCTCTCGTTGCCAAGGATGGTC
TACCCCGAGCCAAAGGTGCTGACACCGTGTAGGAAGGATGTCCTCGTGGTACCCCTTGGCTGGCTCCCA
TTGTCTGGGAGGGCACGTTCAACATCGACATCCTCAACGAGCAGTTCAGGCTCCAGAACCACCATTGG
GTTAACTGTGTTGCCATCAAGAAATACGTGGCTTTCCTGAAGCTGTTCCTGGAGACGGCGGAGAAGCAC
TTCATGGTGGGCCACCGTGTCCACTACTATGTCTTACCAGCAGCCGGCCGGTGGCCCGCTGACGC
TGGGACCGGTCGGCAGCTGTCAGTGTGGAGGTGGGCGCTACAAGCGCTGGCAGGACGTGTCCATGCG
CCGCATGGAGATGATCAGTGACTTCTGCGAGCGGCGCTTCTCAGCGAGGTGGATTACCTGGTGTGCGTG
GACGTGGACATGGAGTTCGCGACCATGTGGGCGTGGAGATCCTGACTCCGCTGTTGGCACCCCTGCACC
CCAGCTTCTACGGAAGCAGCCGGGAGGCCTTCACTACGAGCGCCGCCCCAGTCCCAGGCCTACATCCC
CAAGGACGAGGGCGATTTCTACTACATGGGGCGTTCCTCGGGGGTTCGGTGAAGAGGTGCAGCGGCTC
ACCAGGCCTGCCACCAGGCCATGATGGTCCAGCAGGCCAACGGCATCGAGGCCGTGGCACGACGAGA
GCCACCTGAACAAGTACCTACTGCGCCACAACCACCAAGGTGCTCTCCCCGAGTACTTGTGGGACCA
ACAGCTGTGGGCTGGCCCGCCGCTCTGAGGAAGCTGAGGTTCACTGCGGTGCCCAAGAACCACCAGGCG
GTCGGAACCCGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210203 representing NM_020469
 Red=Cloning site Green=Tags(s)

MAEVLRTLAKPKCHALRPMILFLIMLVLVLFYGYVLSRSLMPGSLERGFMAVREPDHLQRVSLPRMV
 YPQPKVLTPCRKDVLVVTPWLAPIVWEGTFNIDILNEQFRLQNTTIGLTVFAIKKYVAFLLKFLFLETAEKH
 FMVGHVRVHYVFTDQPAAVPRVTLGTGRQLSVLEVAYKRWDVSMRRMEMISDFCERRFLSEVDYLVCV
 DVDMEFRDHVGVIEILTPLFGTLHPSFYGSSREAFYERRPQSQAYIPKDEGDFYMGAFGGSVQEVQRL
 TRACHQAMMVDQANGIEAVWHDESHLNKYLLRHKPTKVLSPYELWDQQLLGWPAVLRKLRFTAVPKNHQA
 VRNP

TRTRPLE - GFP Tag - V

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_020469.2](#), [NP_065202.2](#)

RefSeq Size: 1580 bp

RefSeq ORF: 1065 bp

Locus ID: 28

UniProt ID: [P16442](#)

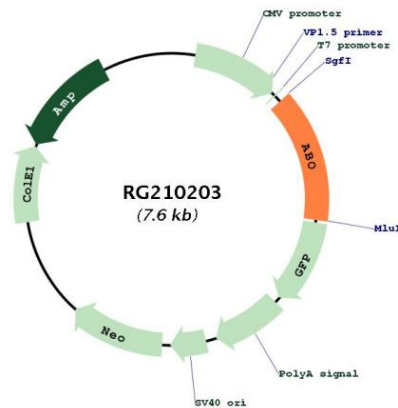
Cytogenetics: 9q34.2

Protein Families: Secreted Protein, Transmembrane

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

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 RG210203