

## Product datasheet for **RG204766**

### ALG2 (NM\_033087) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ALG2 (NM_033087) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALG2
Synonyms:	CDG1I; CDGII; CMS14; CMSTA3; hALPG2; NET38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204766 representing NM_033087 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCTGTTCTCCACCCAGACC  
TGGCGTGGGCGGCGTGAAGCGGCTGGTGTGGACCGGCGTGGCGCTGCAGGCGCGGGGTGTAGCGT  
GAAGATCTGGACAGCGCACTACGACCCGGGCACTGTTTCGCCGAGAGCCGCGAGCTACCGGTGCGCTGT  
GCCGGGACTGGCTGCCGCGAGGCTGGCTGGGCGGCCGCGGCCGCGCTGCGCCTACGTGCGCA  
TGGTTTTCTGGCGCTCTACGTGCTGTTCTCGCCGACGAGGAGTTCGACGTGGTAGTGCGACCAGGT  
GTCTGCCTGTATCCCAGTGTTCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACTCCCA  
GATCTGCTTCTCACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCAATTGACTGGATAGAGG  
AATACACCACAGGCATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGTGTTTTAAGGAAAC  
ATTCAAGTCCCTGTCTCACATAGACCCTGATGTCTCTATCCATCTCTAAATGTCACCAGCTTTGACTCA  
GTTGTTCTGAAAAGCTGGATGACCTAGTCCCAAGGGGAAAAAATTCCTGCTGCTCTCCATCAACAGAT  
ACGAAAGGAAGAAAAATCTGACTTTGGCACTGGAAGCCCTAGTACAGCTGCGTGGAGATTGACATCCCA  
AGATTGGGAGAGGTTTCATCTGATCGTGGCAGGTGTTATGACGAGAGAGTCTGGAGAATGTGGAACAT  
TATCAGGAATTGAAGAAATGGTCCAACAGTCCGACCTTGCCAGTATGTGACCTCTTGAGGCTTTCT  
CAGACAAACAGAAAATCTCCCTCCTCCACAGCTGCACGTGTGCTTTACACACCAAGCAATGAGCACTT  
TGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGCCAGTCATTGCTGTTAATTCGGGTGGACCTTG  
GAGTCCATTGACCACAGTGTACAGGGTTTCTGTGTGAGCCTGACCCGGTGCCTTCTCAGAAGCAATAG  
AAAAGTTCATCCGTGAACCTTCTTAAAAGCCACCATGGGCTGGCTGGAAGAGCCAGAGTGAAGGAAAA  
ATTTTCCCTGAAGCATTACAGAACAGCTCTACCGATATGTTACCAAACGCTGGTA

**ACGGT**ACGGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204766 representing NM\_033087  
Red=Cloning site Green=Tags(s)

MAEEQGRERDSVPKPSVLFHPDLGVGGAERLVLDAALALQARGCSVKIWTAHYDPGHCF AESREL PVRC  
 AGDWLPRGLGWGGRGAAVCAYVRMVFLALYVFLADEEFDVVCDQVSACIPVFR LARRRKKILFYCHFP  
 DLLLTKRDSFLKRLYRAPIDWIEEYTTGMADCILVNSQF TAAVFKETFKSLSHIDPDVLYPSLNVTSFDS  
 VVPEKLDLVPKGGKFLLLSINRYERKKNLTLALEALVQLRGR L TSQDWERVHLIVAGGYDERVLENVEH  
 YQELKKMVQQSDLGQYVTF LRSFSDKQKISLLHSCTCVLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPL  
 ESIDHSVTGF LCEPDPVHFSEAIEKFIREPSLKATMGLAGRARVKEKFSPEAFTEQLYRYVKLLV

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_033087

**ORF Size:** 1248 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\\_033087.4](#)

**RefSeq Size:** 2834 bp

**RefSeq ORF:** 1251 bp

**Locus ID:** 85365

**UniProt ID:** [Q9H553](#)

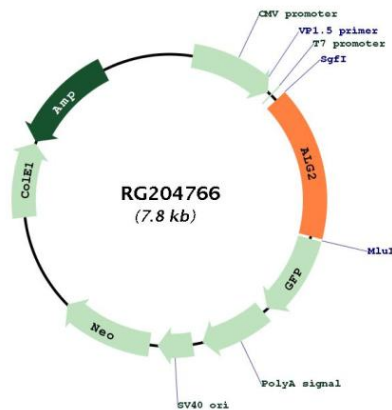
**Cytogenetics:** 9q22.33

**Domains:** Glycos\_transf\_1

**Protein Pathways:** Metabolic pathways, N-Glycan biosynthesis

**Gene Summary:** This gene encodes a member of the glycosyltransferase 1 family. The encoded protein acts as an alpha 1,3 mannosyltransferase, mannosylating Man(2)GlcNAc(2)-dolichol diphosphate and Man(1)GlcNAc(2)-dolichol diphosphate to form Man(3)GlcNAc(2)-dolichol diphosphate. Defects in this gene have been associated with congenital disorder of glycosylation type 1h (CDG-1h). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2008]

### Product images:



Circular map for RG204766