

## Product datasheet for **SC112248**

### ALG12 (NM\_024105) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ALG12 (NM_024105) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALG12
Synonyms:	CDG1G; ECM39; hALG12; PP14673
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC112248 sequence for NM\_024105 edited (data generated by NextGen Sequencing)

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ATGGCTGGAAAGGGGTCATCAGGCAGGCGGCCCTGCTGCTGGGGCTGCTGGTGGCCGTA
GCCACTGTCCACCTGGTCATCTGTCCCTACACCAAAGTGGAGGAGAGCTTCAACCTGCAG
GCCACACATGACCTGCTACCCTGGCAAGACCTGGAGCAGTACGACCATCTTGAGTTC
CCCGGAGTCGTCCCAGGACGTTCTCGGGCCAGTGGTGATCGCAGTGTCTCCAGCCCC
CGCGTTTACGTGCTTTTCGTGTTAGAAATGTCCAAGTTTTACTCTCAGCTAATAGTTAGA
GGAGTGCTTGGACTCGGGTGATTTTTGGACTCTGGACGTTACAAAAGGAAGTGAGACGG
CACTTCGGGGCCATGGTGCCACCATGTTCTGCTGGGTGACGGCCATGCAGTTCCACCTG
ATGTTCTACTGCACGCGGACACTGCCAATGTGCTGGCCCTGCCTGTAGTCTGTGGCC
CTCGCGGCTGGCTGCGGCACGAGTGGGCCGCTTTCATCTGGCTGTGAGCCTTCGCCATC
ATCGTGTTCAGGGTGGAGCTGTGCCTGTTCTGGGCTCCTGCTGCTGCTGGCCTGGGC
AACCGAAAGGTTTCTGTAGTCAGAGCCCTTCGCCACGCCGTCGCCGAGGGATCCTCTGT
TTAGGACTGACGGTTGCTGTGGACTCTTATTTTTGGCGGCAGCTCACTTGGCCGGAAGGA
AAGGTGCTTTGGTACAACACTGTCTGAACAAAAGCTCCAACCTGGGGACCTCCCGCTG
CTGTGGTACTTCTACTCAGCCCTGCCCGCGGCCCTGGGCTGCAGCCTGCTTTCATCCCC
CTGGGCTTGGTAGACAGAAGGACGCACGCGCCGACGGTGCTGGCGCTGGGCTTTCATGGCA
CTCTACTCCCTCCTGCCACACAAGGAGCTACGCTTTCATCATCTATGCCTTCCCCATGCTC
AACATCACGGCTGCCAGAGGCTGCTCCTACCTGCTGAATAACTATAAAAAGTCTTGGCTG
TACAAAGCGGGTCTCTGCTTGTGATCGGACACCTCGTGGTGAATGCCGCTACTCAGCC
ACGGCCCTGTATGTGCCATTTCAACTACCCAGGTGGCGTCGCAATGCAGAGGCTGCAC
CAGCTGGTGCCCCCAGACAGACGCTCCTTCTGCACGTTGACGTGGCAGCCGCCAGACA
GGTGTCTCGGTTTCTCCAAGTCAACAGCGCCTGGAGTACGACAAGAGGGAGGATGTG
CAGCCGGGACAGGCATGCTGGCATAACACACACATCCTCATGGAGCGGCCCTGGGCTC
CTGGCCCTCTACAGGACACACCCGGTCTGGCCAGCGTCTGGGGACCACAGGTGTG
AGTCTGAACCTGACCCAACCTGCCCCCTTCAACGTCCACCTGCAGACAAAGCTGTGTCT
CTGGAGAGGCTCCCCGGCGCTCTGA
    
```

Clone variation with respect to NM\_024105.3

885 a=>g;1177 a=>g

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_024105 unedited
GCATTTTGTATCCGACTCATATAGGCGGCCGCGCAATTCGCACGAGGCCTCGTGCCGAAT
TCGGCAGGAGGACAGAGGGTCTCTGCGGCCGAGCGGCCGGGGCTGCAGTAGCCACTTTA
GATTTGGGCAAGGACTTTAGATTCGGGCTTTCTGTTTCCGCCGTCGCCGTTCTCTGCCGA
GGCTGGCCAGGCAGCCGCGCTTCGAAGGACGCCCGGGAGCTGCGGAGCATGCGTGGA
GTGGCAGTGCTAACGGCTGGTGTCTCGCACTGTTGGCCTGTGAAGTACGTGAAGCTGAA
AGCCTGGAATGGCTGGAAGGGTTCATCAGGCAGCGGCCCTGCTGCTGGGGCTGCTGG
TGGCCGTAGCCACTGTCCACCTGGTCATCTGTCCCTACACCAAAGTGGAGGAGAGCTTCA
ACCTGCAGGCCACACATGACCTGCTCTACCCTGGCAAGACCTGGAGCAGTACGACCATC
TTGAGTTCGCCCGGAGTCTGCCAGGACGTTCTCGGGCCAGTGGCGATCGCAGTGTTT
TCCAGCCCCGCGGTTTACGTGCTTTTCGTGTTAGAAATGTCCAAGTTTTACTCTCAGCT
AATAGGTACAGGAGTCTTGGACTCGGCGTGATTTTTTGGACTCTGGACGCTACACAAGG
AAGTGAGACGGCACTTCGGGGCCCTTGGTGGCCACCATGTTTCTGCTGGGTGACTGCCAT
GCAGTTCCACCTGATGGTCTACTGCACGCGGCCACTGCCAATGGCCTGGCCCTGCCTG
TAGTCTGCTGCCCTCGCGCCTGGTTGTGGCAAGAATGGGCCCGCTTAACTGGCTG
TCAACCCTCCGCCATCATCGGGTCAGGGTGGCACCTGGCCTTGTCTGGCCCTCCTGCT
GTTGTTGCTTTGGGCAACCAAAGGTGTCTGTAGTCAGAACCCTTCTCCACCGCGTCCC
GGTAGGGATCCTCT
    
```

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_024105 unedited ATAGCTATGNAACGCGGCACGCAATCTAGTATCGAGTTTTTTTTTTTTTTTTTTTGTGAGAGG TTCCAATCAACATTTATTGCCTTATTCTTTTTATCTCATTCTTTTTTGAATGTGTTTATC TCCTAAGATTTTATCTGTGATGGAGATGGGATGCCTGTGAATACAAAAGTTGCAGTGGTG GCACCAGGGTGGGGGGTGGCCGGGGCCACCATGGTCTCCCGAGAGGGGGTGTGTCT TAAGTGCCCAAGAGGCCCTCGGGCAGCAAGCGTGGGGTGTGCCAAAATACAGTCCCC CTGGGTGGGCAGGACACACGTGGCCTCTGGCAGACAGGTGCCTGGGTGAGCCCCGTGCT CCTGATTAGTCATGAATGGCACCTGGTCTGGGCGACAGTACCCGAGGAAGCCCTGAGC TGGCCACCATCACCTGGCAGTGGCTCCCGGGTGCCAACAAGACCTGGGCCCTCGTT CTTTGGTGTGAGAGCCCCAGCTGAAGCTGTGGAGGAAGCCCTGGACCTGGTCTGGTGTCT TGTGAGAGGCAGGTGCCAGTCTTTGACTTGCTTCTCTGAATTGTCATAATTGTGCTGG AATTGTGCCAGAACTGGTAGCGATAACAGCTCCTGAAAGCCTGTGGTGTCTGAAGGCT GCCTGGTCCCCCTCAGGACGGCCGGGGAGCCTCTCCAGAGCACCAGCTTGTCTGCAGG TGGACGTTGAAGGGGGCAGTTGGGTCAAGTTCAAACCTCACACCTGTGGTCCCCACGACG CTGGCCAGGACCCGGTGTGTGCTCCTGTATAGGCCATGAGCCAGGGCCGCTCATGAAG ATTGTGTGTATGCANCATGCTGTNCCCGTGCCATNCTCCTGTGCTACCTCAGCGCTG TGACTGGAAAACAGAACACTGTCTGGCGTGCCAGTAACGGCAAAGG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_024105
<b>Insert Size:</b>	2500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_024105.3</a> , <a href="#">NP_077010.1</a>
<b>RefSeq Size:</b>	2387 bp
<b>RefSeq ORF:</b>	1467 bp
<b>Locus ID:</b>	79087
<b>UniProt ID:</b>	<a href="#">Q9BV10</a>
<b>Cytogenetics:</b>	22q13.33
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, N-Glycan biosynthesis

**Gene Summary:**

This gene encodes a member of the glycosyltransferase 22 family. The encoded protein catalyzes the addition of the eighth mannose residue in an alpha-1,6 linkage onto the dolichol-PP-oligosaccharide precursor (dolichol-PP-Man(7)GlcNAc(2)) required for protein glycosylation. Mutations in this gene have been associated with congenital disorder of glycosylation type Ig (CDG-Ig) characterized by abnormal N-glycosylation. [provided by RefSeq, Jul 2008]