

Product datasheet for **RG224481**

OGT (NM_181673) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OGT (NM_181673) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OGT
Synonyms:	HINCUT-1; HRNT1; MRX106; O-GLCNAC; OGT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224481 representing NM_181673 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCGTCTTCCGTGGCAACGTGGCCGACAGCACAGGGTTAGCTGAGTTGGCACATCGAGAATATCAGG
CAGGAGATTTTGGAGCAGCTGAGAGACTGCATGCAGCTCTGGAGACAAGAGCCAGACAATACTGGTGT
GCTTTTACTTTTCATCTATACACTTCCAGTGTGCAAGGCTGGACAGATCTGCTCACTTAGCACTCTG
GCAATTAACAGAACCCCTTCTGGCAGAAGCTTATTCGAATTTGGGGAATGTGTACAAGAAAGAGGGC
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CATTTCCCTGATGCTTACTGCAACCTAGCCAATGCTCTCAAAGAGAAGGGCAGTGTGCTGAAGCAGAAG
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ACGAGAACAGGGAAACATTGAAGAGGCAGTTCCGCTTGTATCGTAAAGCATTAGAAGTCTTCCCAGAGTTT
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AGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATCCTCTTTCTCATGGCTTCAGGAAGGCTATTG
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 TGGAACTAGAGCGGCTCTATCTACAGATGTGGGAGCATTATGCAGCTGGCAACAACTGACCACATGAT
 TAAGCCTGTTGAAGTCACTGAGTCAGCA

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

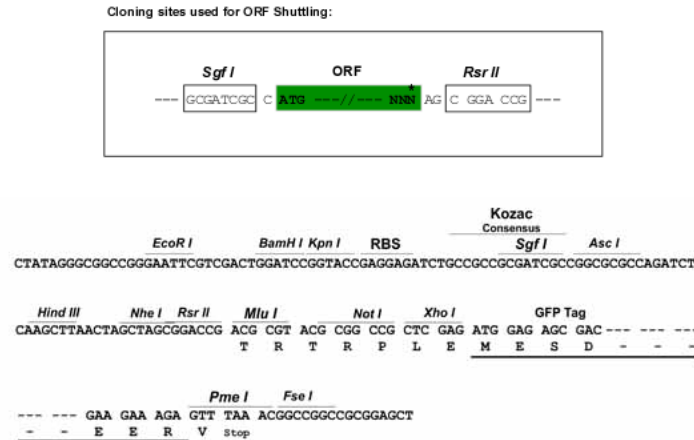
>RG224481 representing NM_181673
 Red=Cloning site Green=Tags(s)

MASSVGNVADSTGLAELAHREYQAGDFEAAERHMQWLWRQEPDNTGVLLLLSSIHQCRRLDRSAHFSTL
 AIKQNPLLAEAYSNLGNVYKERGQLQEAIHYRHALRLKPDFIDGYINLAAALVAAGDMEGAVQAYVSAL
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 SHLMQSIIPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFIDLQIPCNKAADRIHQDGIHILVNMN
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 MFPHLKKKAVIDFKSNGHIYDNRIVLNGIDLKAFLDLSDPKIVKMKCPDGGDNADSSNTALNMPVIPMN
 TIAEAVIEMINRQIQITINGFISISNGLATTQINNKAATGEEVPTIIVTTRSQYGLPEDAIVYCNFNQL
 YKIDPSTLQMWANILKRVPNVSLWLLRFPVAGPEPNIQYQAQNMGLPQNRIIFSPVAPKEEHVRRQLADV
 CLDTPLCNGHTTGMDVLWAGTPMVTMPGETLASRVAASQLTCLGCLLEIAKNRQEYEDIAVKLGTDLLEYL
 KKVRGKVKQRISPLFNTKQYTMELERLYLQWWEHYAAGNKPDHMIKPVEVTESA

SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_181673

ORF Size: 3108 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.

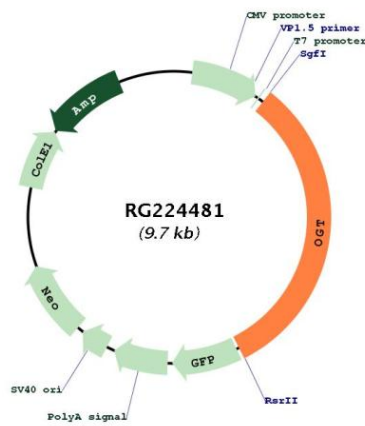
RefSeq: [NM_181673.3](#)

RefSeq Size: 5445 bp

RefSeq ORF: 3111 bp

Locus ID: 8473
UniProt ID: [O15294](#)
Cytogenetics: Xq13.1
Protein Families: Druggable Genome
Protein Pathways: Metabolic pathways, O-Glycan biosynthesis
Gene Summary: This gene encodes a glycosyltransferase that catalyzes the addition of a single N-acetylglucosamine in O-glycosidic linkage to serine or threonine residues. Since both phosphorylation and glycosylation compete for similar serine or threonine residues, the two processes may compete for sites, or they may alter the substrate specificity of nearby sites by steric or electrostatic effects. The protein contains multiple tetratricopeptide repeats that are required for optimal recognition of substrates. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RG224481