

## Product datasheet for RC206822

### OGT (NM\_181672) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OGT (NM_181672) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OGT
Synonyms:	HINCUT-1; HRNT1; MRX106; O-GLCNAC; OGT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206822 representing NM_181672 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTCTTCCGTGGCAACGTGGCCGACAGCACAGAACCAACGAAACGTATGCTTTCCTTCCAAGGGT  
TAGCTGAGTTGGCACATCGAGAATATCAGGCAGGAGATTTGAGGCAGCTGAGAGACTGCATGCAGCT  
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CTGGACAGATCTGCTCACTTTAGCACTCTGGCAATTAACAGAACCCCTTCTGGCAGAAGCTTATTCGA  
ATTTGGGGAATGTGTACAAGGAAAGAGGGCAGTTGCAGGAGGCAATTGAGCATTATCGACATGCATTGCG  
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GGGCGAGTACAAGCTTACGTCTCTGCTCTTCAGTACAATCCTGATTTGTACTGTGTTGCGAGTGACCTGG  
GAACTGCTCAAAGCCCTGGTTCGCTTGAAGAAGCCAAGGCATGTTATTTGAAAGCAATTGAGACGCA  
ACCGAATTTGCAGTAGCTTGGAGTAATCTTGGCTGTGTTTTCAATGCACAAGGGGAAATTTGGCTTGA  
ATTCATCACTTTGAAAAGGCTGTCACCCTTGACCCAACTTTCTGGATGCTTATATCAATTTAGGAAATG  
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CGTAAAGCATTAGAAGTCTTCCAGAGTTTGTGCTGCCATTCAAATTTAGCAAGTGTACTGCAGCAGC  
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ATATTCCAGAAGCCATAGCTTCTTACCGCAGGCTCTGAACTTAAGCCTGATTTTCTGATGCTTATTG  
TAACCTGGCTCATTGCCTGCAGATTGTCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGCT



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AGTATTGTGGCTGACCAGTTAGAGAAGAATAGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATC  
 CTCTTTCTCATGGCTTCAGGAAGGCTATTGCTGAGAGGCACGGCAACCTGTGCTTAGATAAGATTAATGT  
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AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
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**Protein Sequence:**

>RC206822 representing NM\_181672  
 Red=Cloning site Green=Tags(s)

MASSVGNVADSTEPTKRMLSFQGLAELAHREYQAGDFEAAERHQMQLWRQEPDNTGVLLLLSSIHQFQRR  
 LDRSAHFSTLAIKQNPPLAEAYSNLGNVYKERGQLQEAIEHYRHALRLKPDFIDGYINLAAALVAAGDME  
 GAVQAYVSALQYNPDLYCVRSDLGNNLLKALGRLEEAKACYLKA IETQPNFAVAWSNLGCVFNAQGEIWL  
 IHHFEKAVTLDPNFLDAYINLGNVLEKARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLIDLAID  
 TYRRAIELQPHFPDAYCNLANALKEKGSVAEAEEDCYNTALRLCPHADSLNLANIKREQGNIEEAVRLY  
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 AIQINPAFADAHSNLASIHKDSGNIPEIASYRTALKLKPDPDAYCNLAHCLQIVCDWTDYDERMKKL  
 SIVADQLEKNRPLSVHPHSMYPLSHGFRKAI AERHGNCCLDKINVLHKPPYEHKDLKLSDGRLRVGY  
 VSSDFGNHPTSHLMQSIIPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFIDLSQLPCNGKAADRIHQ  
 DGIHILVNMNGYTKGARNELFALRPAPIQAMWLGYPGTSALFMDYIITDQETSPAEEAEQYSEKLAYMP  
 HTFFIGDHANMFPHLKKKAVIDFKSNGHIYDNRIVLNGIDLKAFDLSLPDVKIVKMKCPDGGDNADSNT  
 ALNMPVIPMNTIAEAVIEMINRQIQITINGFISINGLATTQINNKAATGEEVPRTIIVTTRSQYGLPED  
 AIVYCNFNQLYKIDPSTLQMWANILKRVPNVSVLWLLRFPVAVGEPNIQYQAQNMGLPQNRIFSPVAPKEE  
 HVRRLQADVCLDTPLCNGHTTGMDVWAGTTPMTMPGETLASRVAASQLTCLGCLELIAKNRQYEDIA  
 VKLGTDLLEYLKKVRGKVVQRISSPLFNTKQYTMELERLYLQWWEHYAAGNPKPDHMIKPEVETESA

SGPTRRRLRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2545\\_e10.zip](https://cdn.origene.com/chromatograms/mg2545_e10.zip)

**Restriction Sites:**

Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_181672

**ORF Size:** 3138 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_181672.3](#)

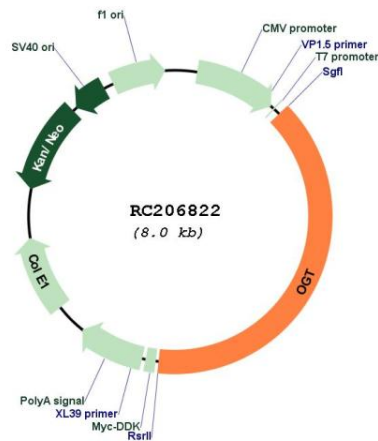
**RefSeq Size:** 5475 bp

**RefSeq ORF:** 3141 bp

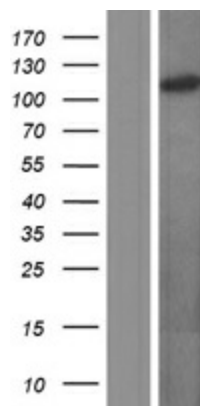
**Locus ID:** 8473  
**UniProt ID:** [O15294](#)  
**Cytogenetics:** Xq13.1  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Metabolic pathways, O-Glycan biosynthesis  
**MW:** 116.7 kDa

**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]

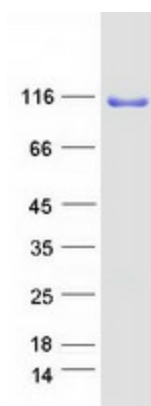
### Product images:



Circular map for RC206822



Western blot validation of overexpression lysate (Cat# [LY403623]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206822 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified OGT protein (Cat# [TP306822]). The protein was produced from HEK293T cells transfected with OGT cDNA clone (Cat# RC206822) using MegaTran 2.0 (Cat# [TT210002]).