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# 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGTCTTCCGTGGGCAACGTGGCCGACAGCACAGAACCAACGAAACGTATGCTTTCCTTCCAAGGGT
TAGCTGAGTTGGCACATCGAGAATATCAGGCAGGAGATTTTGAGGCAGCTGAGAGACACTGCATGCAGCT
CTGGAGACAAGAGCCAGACAATACTGGTGTGCTTTTATTACTTTCATCTATACACTTCCAGTGTCGAAGG
CTGGACAGATCTGCTCACTTTAGCACTCTGGCAATTAAACAGAACCCCCTTCTGGCAGAAGCTTATTCGA
ATTTGGGGAATGTGTACAAGGAAAGAGGGCAGTTGCAGGAGGCAATTGAGCATTATCGACATGCATTGCG
TCTCAAACCTGATTTCATCGATGGTTATATTAACCTGGCAGCCGCCTTGGTAGCAGCGGGTGACATGGAA
GGGGCAGTACAAGCTTACGTCTCTGCTCTTCAGTACAATCCTGATTTGTACTGTGTTCGCAGTGACCTGG
GGAACCTGCTCAAAGCCCTGGGTCGCTTGGAAGAAGCCAAGGCATGTTATTTGAAAGCAATTGAGACGCA
ACCGAACTTTGCAGTAGCTTGGAGTAATCTTGGCTGTGTTTTCAATGCACAAGGGGAAATTTGGCTTGCA
ATTCATCACTTTGAAAAGGCTGTCACCCTTGACCCAAACTTTCTGGATGCTTATATCAATTTAGGAAATG
TCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAGCTTATCTTCGTGCCCTAAGTTTGAGTCCAAA
TCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGCAAGGCCTGATAGATCTGGCAATAGAC
ACCTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACTGCAACCTAGCCAATGCTCTCA
AAGAGAAGGGCAGTGTTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTCTGTGTCCCACCCATGC
AGACTCTCTGAATAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAGTTCGCTTGTAT
CGTAAAGCATTAGAAGTCTTCCCAGAGTTTGCTGCTGCCCATTCAAATTTAGCAAGTGTACTGCAGCAGC
AGGGAAAACTGCAGGAAGCTCTGATGCATTATAAGGAGGCTATTCGAATCAGTCCTACCTTTGCTGATGC
CTACTCTAATATGGGAAACACTCTAAAGGAGATGCAGGATGTTCAGGGAGCCTTGCAGTGTTATACGCGT
GCCATCCAAATTAATCCTGCATTTGCAGATGCACATAGCAATCTGGCTTCCATTCATAAGGATTCAGGGA
ATATTCCAGAAGCCATAGCTTCTTACCGCACGGCTCTGAAACTTAAGCCTGATTTTCCTGATGCTTATTG
TAACTTGGCTCATTGCCTGCAGATTGTCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGTC

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AGTATTGTGGCTGACCAGTTAGAGAAGAATAGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATC
CTCTTTCTCATGGCTTCAGGAAGGCTATTGCTGAGAGGCACGGCAACCTGTGCTTAGATAAGATTAATGT
TCTTCATAAACCACCATATGAACATCCAAAAGACTTGAAGCTCAGTGATGGTCGGCTGCGTGTAGGATAT
GTGAGTTCCGACTTTGGGAATCATCCTACTTCTCACCTTATGCAGTCTATTCCAGGCATGCACAATCCTG
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TATCACTGATCAGGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGGCTTATATGCCC
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AGATTCAAATAACAATTAATGGATTCAGTATTAGCAATGGACTGGCAACTACTCAGATCAACAATAAGGC
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GCCATCGTATACTGTAACTTTAATCAGTTGTATAAAATTGACCCTTCTACTTTGCAGATGTGGGCAAACA
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GTGAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTCGTGGCAAAGTCTGGAAGCAAAGAATATCTA
GCCCTCTGTTCAACACCAAACAATACACAATGGAACTAGAGCGGCTCTATCTACAGATGTGGGAGCATTA
TGCAGCTGGCAACAAACCTGACCACATGATTAAGCCTGTTGAAGTCACTGAGTCAGCA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206822 representing NM_181672
Red=Cloning site Green=Tags(s)

MASSVGNVADSTEPTKRMLSFQGLAELAHREYQAGDFEAAERHCMQLWRQEPDNTGVLLLLSSIHFQCRR
LDRSAHFSTLAIKQNPLLAEAYSNLGNVYKERGQLQEAIEHYRHALRLKPDFIDGYINLAAALVAAGDME
GAVQAYVSALQYNPDLYCVRSDLGNLLKALGRLEEAKACYLKAIETQPNFAVAWSNLGCVFNAQGEIWLA
IHHFEKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLIDLAID
TYRRAIELQPHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIEEAVRLY
RKALEVFPEFAAAHSNLASVLQQQGKLQEALMHYKEAIRISPTFADAYSNMGNTLKEMQDVQGALQCYTR
AIQINPAFADAHSNLASIHKDSGNIPEAIASYRTALKLKPDFPDAYCNLAHCLQIVCDWTDYDERMKKLV
SIVADQLEKNRLPSVHPHHSMLYPLSHGFRKAIAERHGNLCLDKINVLHKPPYEHPKDLKLSDGRLRVGY
VSSDFGNHPTSHLMQSIPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFIDLSQIPCNGKAADRIHQ
DGIHILVNMNGYTKGARNELFALRPAPIQAMWLGYPGTSGALFMDYIITDQETSPAEVAEQYSEKLAYMP
HTFFIGDHANMFPHLKKKAVIDFKSNGHIYDNRIVLNGIDLKAFLDSLPDVKIVKMKCPDGGDNADSSNT
ALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQINNKAATGEEVPRTIIVTTRSQYGLPED
AIVYCNFNQLYKIDPSTLQMWANILKRVPNSVLWLLRFPAVGEPNIQQYAQNMGLPQNRIIFSPVAPKEE
HVRRGQLADVCLDTPLCNGHTTGMDVLWAGTPMVTMPGETLASRVAASQLTCLGCLELIAKNRQEYEDIA
VKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQMWEHYAAGNKPDHMIKPVEVTESA

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mg2545_e10.zip

**Restriction Sites:** SgfI-RsrII

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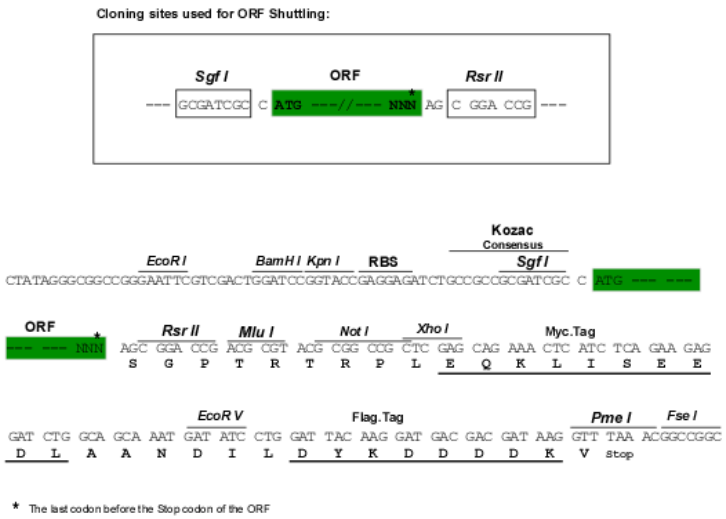
**Cloning Scheme:**




| | |
|---|---|
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_181672.3 |
| **RefSeq Size:** | 5475 bp |
| **RefSeq ORF:** | 3141 bp |
| **Locus ID:** | 8473 |
| **UniProt ID:** | O15294 |

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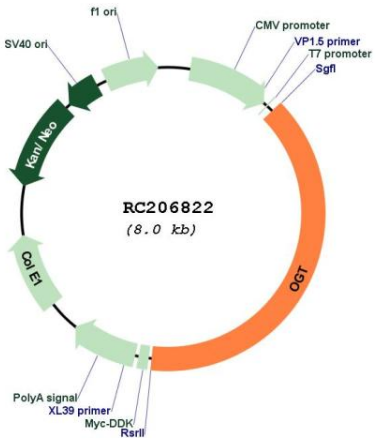
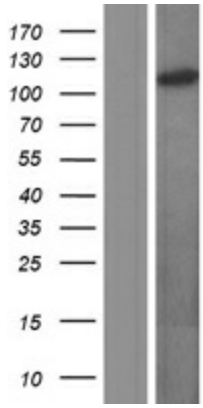
| | |
|---|---|
| **Cytogenetics:** | Xq13.1 |
| **Protein Families:** | Druggable Genome |
| **Protein Pathways:** | Metabolic pathways, O-Glycan biosynthesis |
| **MW:** | 116.7 kDa |
| **Gene Summary:** | This gene encodes a glycosyltransferase that catalyzes the addition of a single N-acetylglucosamine 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 un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206822 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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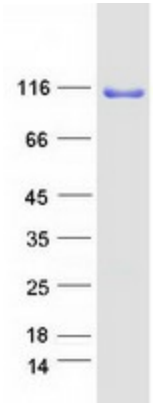


Coomassie blue staining of purified OGT protein (Cat# [TP306822]). The protein was produced from HEK293T cells transfected with OGT cDNA clone (Cat# RC206822) using MegaTran 2.0 (Cat# [TT210002]).

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