

## Product datasheet for **RG215479**

### GCNT2 (NM\_145649) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GCNT2 (NM_145649) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GCNT2
Synonyms:	bA360O19.2; bA421M1.1; CCAT; CTRCT13; GCNT2C; GCNT5; IGNT; II; NACGT1; NAGCT1; ULG3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215479 representing NM_145649 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATGGGCTCTTGAAGCACTGTCTTTTTAGCGCGTCTCTTATCTCTGCCCTGATTTTTGTATTTGTTT  
ACAATACTGAGTTATGGGAGAATAAACGTTTTCTGAGGGCAGCTCTGTCCAATGCTTCACGTGTAGCAGA  
AGCCTGTCATCAGATTTTGGGGGAAAGTTTTTACCCAACAGAAAATGCATTGAAAACACCTTGTAT  
GAAGCTACCTGCTATGAGTACATGGTTCGAAGCCACTATGTAACAGAAACACTCTCTGAAGAAGAGGCTG  
GGTTCCCTTTAGCTTACACAGTGACCATCCACAAAGACTTCGGCACTTTTGGAGGCTCTTCAGGGCGAT  
TTATATGCCCCAAAATGTCTACTGTGTGCACCTGGATCAGAAGGGCAGGATGCCTTTAAAGGTGCAGTG  
AAACAGTTACTCAGCTGCTTCCCAAATGCTTTTCTGGCTTCCAAGAAGGAGTCCGGTTGTCTATGGGGGA  
TCTCCAGGCTCCAGGCTGACCTGAACTGCCTGGAAGACCTTGTGGCCTCTGAAGTTCCCTGGAAGTATGT  
CATCAACACCTGCGGGCAAGACTTTCCCTGAAAACCAACAGGGAAATAGTTCAGTATCTGAAGGGATTT  
AAAGGGAAAAATATCACCCCGGAGTGTGCTCCTGACCACGCTGTTGGACGGACTAAATACGTCCACC  
AAGAACTGTTAAACCACAAAAATTCCTACGTGATTAACAACAAAAATAAAACTCCTCCTCCTCATGA  
CATGGTGATTTACTTTGGCAGCGCCTACGTGGCTCTACAAGGGACTTTGCTAATTCGTCCTCCAAGAC  
CAGCTCGCACTTGACTTACTCTCCTGGTCCAAGGACACCTACAGCCCCGACGAACATTTCTGGTGACAC  
TCAACAGGATCCCGGTGTTCTGGCTCTATGCCAAATGCATCCTGGACTGGAAAACCTCAGAGCTATAAA  
GTGGAGTGACATGGAAGACAGACACGGAGGCTGCCACGGCCACTATGTACATGGTATTTGTATCTATGGA  
AACGGAGACTTAAAGTGCTGGTTAATTCACCAAGCCTGTTTGCTAACAAAGTTTGAGCTTAATACCTACC  
CCCTTACTGTGGAATGCCTAGAAGTACGAGGATCGCGAAAGAACCCTCAATCAGAGTGAACTGCGATACA  
ACCCAGCTGGTATTTT

**ACGGT**ACGGCGCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG215479 representing NM\_145649  
 Red=Cloning site Green=Tags(s)

MMGSWKHCLFSASLISALIFVVFYNTLWENKRFLRAALSNASLLAEACHQIFEGKVFYPTENALKTTLD  
 EATCYEYMRSHYVTETLSEEEAGFPLAYTVTIHKDFGTFERLFRAIYMPQNVYCVHLDQKATDAFKGAV  
 KQLLSCFPNAFLASKKESVYGGISRLQADLNCLLEDLVASEVPWKYVINTCGQDFPLKTNREIVQYLKGF  
 KGKNITPGVLPDPHAVGRTKYVHQELLNHKNSYVIKTTKLKTPPPHDMVIYFGTAYVALTRDFANFVLQD  
 QLALDLLSWSKDTYSPDEHFVWTLNRIPGVPGSMPNASWTGNLRAIKWSDMEDRHGGCHGHYVHGICIY  
 NGDLKWLVNPSPLFANKFELNTYPLTVECLELRHRERTLNQSETAIQPSWYF

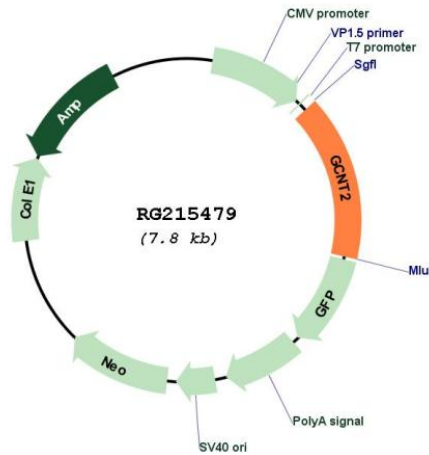
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_145649

<b>ORF Size:</b>	1206 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_145649.5</a>
<b>RefSeq Size:</b>	4525 bp
<b>RefSeq ORF:</b>	1209 bp
<b>Locus ID:</b>	2651
<b>UniProt ID:</b>	<a href="#">Q06430</a>
<b>Cytogenetics:</b>	6p24.3-p24.2
<b>Domains:</b>	Branch
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Glycosphingolipid biosynthesis - lacto and neolacto series, Metabolic pathways
<b>Gene Summary:</b>	This gene encodes the enzyme responsible for formation of the blood group I antigen. The i and I antigens are distinguished by linear and branched poly-N-acetyllactosaminoglycans, respectively. The encoded protein is the I-branching enzyme, a beta-1,6-N-acetylglucosaminyltransferase responsible for the conversion of fetal i antigen to adult I antigen in erythrocytes during embryonic development. Mutations in this gene have been associated with adult i blood group phenotype. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]