

## Product datasheet for **RG217262**

### UGT2A1 (NM\_006798) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	UGT2A1 (NM_006798) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	UGT2A1
Synonyms:	UDPGT2A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG217262 representing NM\_006798  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTTAAACAACCTTCTGCTGTTCTCCCTTCAGATAAGTCTCATAGGAACCACTCTTGGTGGGAATGTTT  
 TGATTTGGCCAATGGAAGGTAGTCATTGGCTAAATGTTAAGATAATTATAGATGAGCTCATTAAAAAGGA  
 GCATAATGTGACTGTCTAGTTGCCTCTGGTGCCTTTTCATCACACCAACCTCTAACCCATCTCTGACA  
 TTTGAAATATATAAGGTGCCCTTTGGCAAAGAAAGAATAGAAGGAGTAATTAAGGACTTCGTTTCGACAT  
 GGCTGGAAAATAGACCATCTCCTTCAACCATTTGGAGATTCTATCAGGAGATGGCCAAAGTAATCAAGGA  
 CTTCCACATGGTGTCTCAGGAGATCTGTGATGGCGTCTTAAAAACCAACAGCTGATGGCAAAGCTAAAG  
 AAAAGCAAGTTTGAAGTCTGGTGTCTGATCCAGTATTTCTTGTGGCGATATAGTAGCTTTAAACTTG  
 GAATTCATTTATGTACTCCTTGAGGTTTTCTCCAGCCTCAACAGTGGAAAAGCACTGTGGGAAGGTACC  
 ATACCCTCCTTCTATGTTCTGCTGTTTTATCAGAACTACCGACCAAAATGCTTTTCACAGCAGATA  
 AGAAATTCATCTCTACCACTACAGGACTACATGTTTAAAACCTTTTGAAATCATGGGATTCATACT  
 ATAGTAAAGCTTTAGGAAGACCCACTACGTTATGTGAGACTATGGGAAAAGCTGAAATTTGGTAAATCCG  
 AACATATTGGGATTTGAATTTCTCGTCCATACTTACCTAATTTTGAGTTTGTGGAGGATTGCACTGC  
 AAACCTGCCAAACCTTTACCTAAGGAAATGGAAGAATTTATCCAGAGCTCAGGTAATAATGGTGTGTGG  
 TGTCTTCTCTGGGATCAATGGTCAAAAACCTTACAGAAGAAAAGGCAATCTTATTGCCTCAGCCCTTGC  
 CCAGATTCCACAGAAGTTTTATGGAGATACAAAGGAAAGAAACCAGCCACATTAGGAAACAATACTCAG  
 CTCTTTGATTGGATACCCAGAATGATCTTCTTGGACATCCAAAACCAAGCTTTTATCACTCATGGTG  
 GAACTAATGGGATCTACGAAGCTATTTACCAGGAGTCCCTATGGTGGGAGTTCCCATGTTGCTGATCA  
 GCCTGATAACATTGCTCACATGAAGGCCAAAGGAGCAGCTGTGGAAGTGAACCTAAACACAATGACAAGT  
 GTGGATTTGCTTAGCGCTTTGAGAACAGTCATTAATGAACCTTCTATAAAGAGAATGCTATGAGGTTAT  
 CAAGAATTCACCATGATCAACCTGTAAAGCCCCTGGATCGAGCAGTCTTCTGGATCGAGTTTGTGATGCG  
 CCACAAAGGAGCCAAGCACCTTCGGGTTGCAGCCCATGACCTCACCTGGTCCAGTACCCTCTTTGGAT  
 GTAATTGGGTTCTTGTGGTCTGTGTGACAACGGCTATATTTTTGGTCATACAATGTTGTTTGTCTTCT  
 GTCAAAATTTGGTAAGATAGGAAAGAAGAAAAAAGAGAA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG217262 representing NM\_006798  
 Red=Cloning site Green=Tags(s)

MLNNLLFSLQISLIGTTLGGNVLWPMEGSHLNVKIIIDELIKKEHNVTVLVSGALFITPTSNPSLT  
 FEIYKVPFGKERIEGVKIDFVSTWLENRPSSTIWRFYQEMAKVIKDFHMVSQEI CDGVLKNQQLMAKLLK  
 KSKFEVLVSDPVFPCGDIVALKLGIPFMYSLRFS PASTVEKHCGKVPYPPSYVPAVLS ELDQMSFTDRI  
 RNFISYHLQDYMFE TLWKSWSYYSKALGRPTTLCETMGKAEIWLIRTYWDFEFP RPYP LNF E FVGLHC  
 KPAKPLPKEMEEFIQSSGKNGVVVSLGSMVKNL TEEKANLIASALAQIPQKVLWRYKGGK PATLGNNTQ  
 LFDWIPQNDLLGHPKTKAFITHGGTNGIYEAIYHGVP MVGVP MFADQPDNIAHMKAKGA AVEVNLNTMTS  
 VDLLSALRTVINEPSYKENAMRLSRIHHDQPVKPLDRAVFWIEFVMRHKGAKHLRVA AHDLTWFQYHSLD  
 VIGFLLVCVTTAIFLVIQCCLFSCQKFGKIGKKKKRE

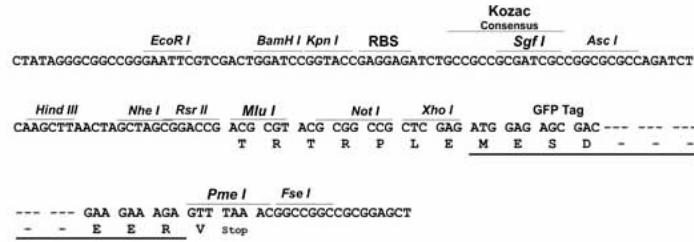
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

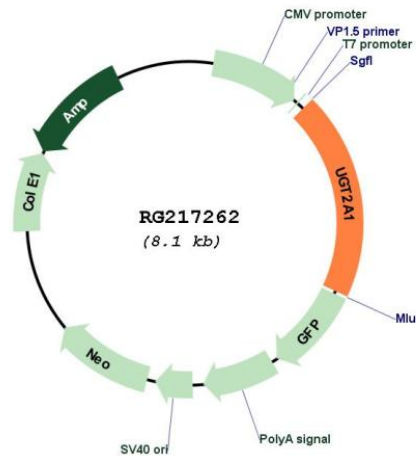
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_006798
<b>ORF Size:</b>	1581 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_006798.1</a> , <a href="#">NP_006789.1</a>
<b>RefSeq Size:</b>	1766 bp
<b>RefSeq ORF:</b>	1584 bp
<b>Locus ID:</b>	10941
<b>UniProt ID:</b>	<a href="#">Q9Y4X1</a>
<b>Cytogenetics:</b>	4q13.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Androgen and estrogen metabolism, Ascorbate and aldarate metabolism, Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Pentose and glucuronate interconversions, Porphyrin and chlorophyll metabolism, Retinol metabolism, Starch and sucrose metabolism

**Gene Summary:**

The protein encoded by this gene belongs to the UDP-glycosyltransferase family, members of which catalyze biotransformation reactions in which lipophilic substrates are conjugated with glucuronic acid to increase water solubility and enhance excretion. They are of major importance in the conjugation and subsequent elimination of potentially toxic xenobiotics and endogenous compounds. This enzyme is expressed in the olfactory neuroepithelium, which lines the posterior nasal cavity and is exposed to a wide range of odorants and airborne toxic compounds. Hence, this protein has been suggested to be involved in clearing lipophilic odorant molecules from the sensory epithelium. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. This gene shares exon structure with the UDP glucuronosyltransferase 2A2 family member, which encodes N-terminally distinct isoforms. [provided by RefSeq, Jul 2014]