

## Product datasheet for **RG238494**

### UGT2A1 (NM\_001301239) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	UGT2A1 (NM_001301239) 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)
ORF Nucleotide Sequence:	>RG238494 representing NM_001301239. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGTTAAACAACCTTCTGCTGTTCTCCCTTCAGATAAGTCTCATAGGAACCACTCTTGGTGGGAATGTT
TTGATTTGGCCAATGGAAGGTAGTCATTGGCTAAATGTTAAGATAATTATAGATGAGCTCATTAAAAAG
GAGCATAATGTGACTGTCCTAGTTGCCTCTGGTGCACCTTTTCATCACACCAACCTCTAACCCATCTCTG
ACATTTGAAATATATAAGGTGCCCTTTGGCAAAGAAAGAATAGAAGGAGTAATTAAGGACTTCGTTTTG
ACATGGCTGGAAAATAGACCATCTCCTCAACCATTTGGAGATTCTATCAGGAGATGGCCAAAGTAATC
AAGGACTTCCACATGGTGTCTCAGGAGATCTGTGATGGCGTTCTTAAAAACCAACAGCTGATGGCAAAG
CTAAAGAAAAGCAAGTTTGAAGTCTGGTGTCTGATCCAGTATTTCCCTTGTGGCGATATAGTAGCTTTA
AACTTGGAAATCCATTTATGTACTCCTTGAGTTTTCTCCAGCCTCAACAGTGGAAAAGCACTGTGGG
AAGGTACCATACCTCCTTCTATGTTCTGCTGTTTTATCAGAACTCACCGACCAAATGTCTTTCCTACT
GACAGAAATAAGAAATTTTCATCTCCTACCACCTACAGGACTACATGTTTGAACCTCTTTGGAAATCATGG
GATTCATACTATAGTAAAGCTTTAGGAAGACCCACTACGTTATGTGAGACTATGGGGAAAGCTGAAATT
TGGTTAATCCGAACATATTGGGATTTTGAATTTCTCGTCCACTTACCTAATTTTGGATTTGTTGGA
GGATTGCACTGCAAACCTGCCAAACCTTACCTAAGTTTTATGGAGATACAAAGGAAAGAAACACAGCC
ACATTAGGAAACAATACTCAGCTCTTTGATTGGATACCCAGAAATGATCTTCTTGGACATCCCAAAAC
AAAGCTTTTATCACTCATGGTGAATAATGGGATCTACGAAGCTATTTACCACGGAGTCCCTATGGTG
GGAGTTCCCATGTTTGTGATCAGCCTGATAACATTGCTCACATGAAGGCCAAAGGAGCAGCTGTGGAA
GTGAACCTAAACACAATGACAAGTGTGGATTTGCTTAGCGCTTTGAGAACAGTCATTAATGAACCTTCT
TATAAAGAGAAATGCTATGAGGTTATCAAGAATTCACCATGATCAACCTGTAAGCCCTGGATCGAGCA
GTCTTCTGGATCGAGTTTGTGATGCGCCACAAAGGAGCCAAAGCACCTTCGGGTTGCAGCCCATGACCTC
ACCTGGTTCAGTACCACTCTTTGGATGTAATTTGGTTCTTGTGCTGGTCTGTGTGACAACGGCTATATTT
TTGGTCATACAATGTTGTTTCTGTCAAAAATTTGGTAAGATAGGAAAGAAGAAAAAAGAGAA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238494  
 Blue=ORF Red=Cloning site Green=Tag(s)

MLNNLLFSLQISLIGTTLGGNVLWPMEGSHLNVKIIIDELIKKEHNVTVLVASGALFITPTSNPSL  
 TFEIYKVPFGKERIEGVIKDFVLTWLENRPPSTIWRFYQEMAKVIKDFHMVSQEICDGLVKNQQLMAK  
 LKKSKEFEVLVSDPVFPCGDI VALKLGIPFMYSLRFSPASTVEKHCGKVPYPPSYVPAVLSELTDQMSFT  
 DRIRNFI SYHLQDYMFETLWKSWDSYYSKALGRPTTLCETMGKAEIWLIRTYWDFEPRPYLPNFEFVG  
 GLHCKPAKPLPKVLWRYGKKPATLGNNTQLFDWIPQNDLLGHPKTKAFITHGNGIYEAIYHGVP MV  
 GVPMFADQPDNIAHMKAKGAAVEVNLNTMTSVDLLSALRTVINEPSYKENAMRLSRIHHDQPKPLDRA  
 VFWIEFVMRHKGAKHLRVAHADLWTFQYHSLDVI GFLLCVTTAIFLVIQCCLFSCQKFGKIGKKKKRE  
**TR**TRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001301239

**ORF Size:** 1449 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](#)

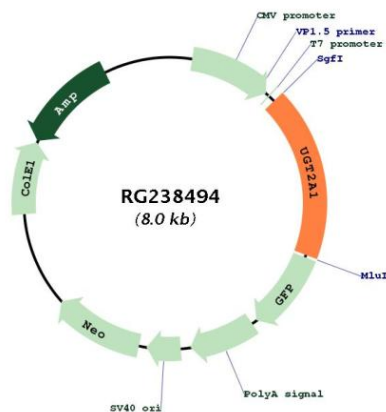
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

**RefSeq:** [NM\\_001301239.1](#), [NP\\_001288168.1](#)

RefSeq Size:	2461 bp
RefSeq ORF:	1452 bp
Locus ID:	10941
UniProt ID:	<a href="#">Q9Y4X1</a>
Cytogenetics:	4q13.3
Protein Families:	Transmembrane
Protein Pathways:	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
MW:	55.6 kDa
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]

### Product images:



Circular map for RG238494