

Product datasheet for **RG232918**

UGT2A1 (NM_001252275) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UGT2A1 (NM_001252275) 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:

>RG232918 representing NM_001252275
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTAAACAACCTTCTGCTGTTCTCCCTTCAGATAAGTCTCATAGGAACCACTCTTGGTGGGAATGTTT
 TGATTTGGCCAATGGAAGGTAGTCATTGGCTAAATGTTAAGATAATTATAGATGAGCTCATTAAAAAGGA
 GCATAATGTGACTGTCTAGTTGCCTCTGGTGCACCTTTTCATCACACCAACCTCTAACCCATCTCTGACA
 TTTGAAATATATAGGGTGCCTTTGGCAAAGAAAGAATAGAAGGAGTAATTAAGGACTTCGTTTTGACAT
 GGCTGGAAAATAGACCATCTCCTTCAACCATTTGGAGATTCTATCAGGAGATGGCCAAAGTAATCAAGGA
 CTTCCACATGGTGTCTCAGGAGATCTGTGATGGCGTTCTAAAAACCAACAGCTGATGGCAAAGCTAAAG
 AAAAGCAAGTTTGAAGTCTGGTGTCTGATCCAGTATTTCTTGTGGCGATATAGTAGCTTTAAACTTG
 GAATTCATTTATGTACTCCTTGAGTTTTCTCCAGCCTCAACAGTGGAAAAGCACTGTGGGAAGGTACC
 ATACCCTCCTTCTATGTTCTGCTGTTTTATCAGAACTACCGACCAAATGTCTTTCACTGACAGAATA
 AGAAATTCATCTCTACCACTACAGGACTACATGTTTGAAACTCTTTGAAATCATGGGATTCATACT
 ATAGTAAAGCTTTAGGTGGACTTCTACTCTGTTGCCAGGCTGGAGTGCAGTGGCGGATCTTGGCTCACT
 GCAACCTCTGTTCCCGGTTCAAGCGATTCTCCCGCCTCAGCCTCCATTGTAGTTGGGATTACAGGCTG
 CCAGCAGGAAGACCCACTACGTTATGTGAGACTATGGGAAAGCTGAAATTTGGTTAATCCGAACATATT
 GGGATTTTGAATTTCTCGTCCATACTTACCTAATTTTGAGTTTGTGGAGGATTGCACTGCAAACCTGC
 CAAACCTTTACCTAAGTTTTATGGAGATACAAAGGAAAGAAACCAGCCACATTAGGAAACAATACTCAG
 CTCTTTGATTGGATACCCAGAATGATCTTCTGGACATCCAAAACCAAAGCTTTTATCACTCATGGTG
 GAACTAATGGGATCTACGAAGCTATTTACCAGGAGTCCCTATGGTGGGAGTTCCCATGTTTGTCTGATCA
 GCCTGATAACATTGCTCACATGAAGGCCAAAGGAGCAGCTGTGGAAGTGAACCTAAACACAATGACAAGT
 GTGGATTTGCTTAGCGCTTTGAGAACAGTCATTAATGAACCTTCTATAAAGAGAATGCTATGAGGTTAT
 CAAGAATTCACCATGATCAACCTGTAAGCCCTGGATCGAGCAGTCTTCTGGATCGAGTTTGTGATGCG
 CCACAAAGGAGCCAAGCACCTTCGGGTTGCAGCCCATGACCTCACCTGGTCCAGTACCCTCTTTGGAT
 GTAATTGGGTTCTTGTGGTCTGTGTGACAACGGCTATATTTTTGGTCATACAATGTTGTTTGTCTTCT
 GTCAAAATTTGGTAAGATAGGAAAGAAGAAAAAAGAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG232918 representing NM_001252275
 Red=Cloning site Green=Tags(s)

MLNLLLLFSLQISLIGTTLGGNVLWPMEGSHLNVKIIIDELIKKEHNVTVLVSGALFITPTSNPSLT
 FEIYRVPFGKERIEGVIKDFVLTWLENRPSSTIWRFYQEMAKVIKDFHMVSQEI CDGVLKNQQLMAKLLK
 KSKFEVLVSDPVFPCGDIVALKLGIPIFMYSLRFS PASTVEKHCGKVPYPPSYVPAVLSLTDQMSFTDRI
 RNFISYHLQDYMFE TLWKSWSYYSKALGGLLLCCPGWSAVADLGS LQPLLPGFKRFSRLSLHCSWDYRL
 PAGRPTTLCETMGKAEIWLIRTYWDFEFPRPYLPNFEFVGG LHCKPAKPLPKVLWRYKGGK PATLGNNTQ
 LFDWIPQNDLLGHPKTKAFITHGGTNGIYEAIYHGVPMVGVPMFADQPDNIAHMKAKGA AVEVNLNTMTS
 VDLLSALRTVINEPSYKENAMRLSRIHHDQPVKPLDRAVFWIEFVMRHKGAKHLRVA AHDLTFWQYHSLD
 VIGFLLVCVTTAIFLVIQCCLFSCQKFGKIGKKKKRE

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

ACCN:	NM_001252275
ORF Size:	1581 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:	<ol style="list-style-type: none">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.
RefSeq:	NM_001252275.1 , NP_001239204.1
RefSeq Size:	2656 bp
RefSeq ORF:	1584 bp
Locus ID:	10941
UniProt ID:	Q9Y4X1
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

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]