

Product datasheet for **RC238494**

UGT2A1 (NM_001301239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UGT2A1 (NM_001301239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	UGT2A1
Synonyms:	UDPGT2A1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238494 representing NM_001301239
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTAAACAACCTTCTGCTGTTCTCCCTTCAGATAAGTCTCATAGGAACCACTCTTGGTGGGAATGTTT
 TGATTTGGCCAATGGAAGGTAGTCATTGGCTAAATGTTAAGATAATTATAGATGAGCTCATTAAAAAGGA
 GCATAATGTGACTGTCTAGTTGCCTCTGGTGCACCTTTTCATCACACCAACCTCTAACCCATCTCTGACA
 TTTGAAATATATAAGGTGCCCTTTGGCAAAGAAAGAATAGAAGGAGTAATTAAGGACTTCGTTTTGACAT
 GGCTGGAAAATAGACCATCTCCTTCAACCATTTGGAGATTCTATCAGGAGATGGCCAAAGTAATCAAGGA
 CTTCCACATGGTGTCTCAGGAGATCTGTGATGGCGTCTTAAAAACCAACAGCTGATGGCAAAGCTAAAG
 AAAAGCAAGTTTGAAGTCTGGTGTCTGATCCAGTATTTCTTGTGGCGATATAGTAGCTTTAAACTTG
 GAATTCATTTATGTACTCCTTGAGTTTTCTCCAGCCTCAACAGTGGAAAAGCACTGTGGGAAGGTACC
 ATACCCTCCTTCTATGTTCTGCTGTTTTATCAGAACTCACCGACCAAAATGTCTTTCACCTGACAGAATA
 AGAAAATTCATCTCTACCACTACAGGACTACATGTTTAAAACCTTTTGAAAATCATGGGATTCATACT
 ATAGTAAAGCTTTAGGAAGACCCACTACGTTATGTGAGACTATGGGGAAAGCTGAAAATTTGGTTAATCCG
 AACATATTGGGATTTTGAATTTCTCGTCCATACTTACCTAATTTTGAGTTTGTGGAGGATTGCACTGC
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 TCATGGTGGAACTAATGGGATCTACGAAGCTATTTACCACGGAGTCCCTATGGTGGGAGTTCCCATGTTT
 GCTGATCAGCCTGATAACATTGCTCACATGAAGGCCAAAGGAGCAGCTGTGGAAGTGAACCTAAACACAA
 TGACAAGTGTGGATTTGCTTAGCGCTTTGAGAACAGTCATTAATGAACCTCTTATAAAGGAAATGCTAT
 GAGGTTATCAAGAATTCACCATGATCAACCTGTAAGGCCCTGGATCGAGCAGTCTTCTGGATCGAGTTTT
 GTCATGCCCCACAAAGGAGCCAAAGCACCTTCGGGTTGCAGCCATGACCTCACCTGGTTCAGTACCACT
 CTTTGGATGTAATTGGGTTCTTGTCTGTGTGACAACGGCTATATTTTTGGTCATACAAATGTTGTTT
 GTTTTCTGTCAAAAATTTGGTAAGATAGGAAAGAAGAAAAAAGAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238494 representing NM_001301239
 Red=Cloning site Green=Tags(s)

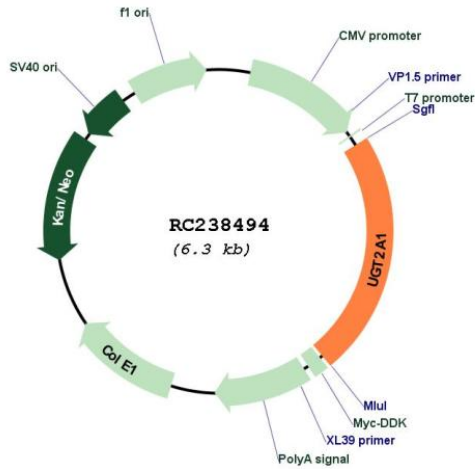
MLNLLLLFSLQISLIGTTLGGNVLIWPMEGSHLNVKIIIDELIKKEHNVTVLVASGALFITPNSPLT
 FEIYKVPFGKERIEGVIKDFVLWLENRPSSTIWRFYQEMAKVIKDFHMVSQEI CDGVLKNQQLMAKLK
 KSKFEVLVSDPVFPCGDIVALKLGIPFMYSLRFS PASTVEKHCGKVPYPPSYVPAVLS ELDQMSFTDRI
 RNFISYHLQDYMFETLWKS WDSYYSKALGRPTTLCETMGKAEIWLIRTYWDFEFPRPYLPNFEFVGLLHC
 KPAKPLPKVLWRYKGGK PATLGNNTQLFDWIPQNDLLGHPKTKAFITHGGTNGIYEAIYHGVP MVGVP MF
 ADQPDNIAHMKAKGAAVEVNLNTMTSVDLLSALRTVINEPSYKENAMRLSRIHHDQPVKPLDRAVFWIEF
 VMRHKGAKHLRVAADHLTWFQYHSLDVI GFLLCVTTAIFLVIQCCLFSCQKFGKIGK KKKRE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


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).

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:	<u>NM_001301239.1</u> , <u>NP_001288168.1</u>
RefSeq Size:	2461 bp
RefSeq ORF:	1452 bp
Locus ID:	10941
UniProt ID:	<u>Q9Y4X1</u>
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]