

Product datasheet for RG234300

OriGene Technologies, Inc.

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Cytochrome P450 3A4 (CYP3A4) (NM_001202855) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Cytochrome P450 3A4 (CYP3A4) (NM_001202855) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: Cytochrome P450 3A4

Synonyms: CP33; CP34; CYP3A3; CYPIIIA3; CYPIIIA4; HLP; NF-25; P450C3; P450PCN1; VDDR3

Mammalian Cell

Selection:

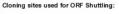
Neomycin

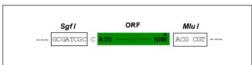
Vector: pCMV6-AC-GFP (PS100010)

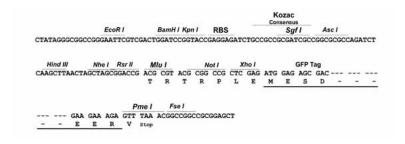
E. coli Selection: Ampicillin (100 ug/mL)

Restriction Sites: Sgfl-Mlul

Cloning Scheme:







ACCN: NM_001202855

ORF Size: 1506 bp



Cytochrome P450 3A4 (CYP3A4) (NM_001202855) Human Tagged ORF Clone - RG234300

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: 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 001202855.2</u>, <u>NP 001189784.1</u>

 RefSeq Size:
 2789 bp

 RefSeq ORF:
 1509 bp

 Locus ID:
 1576

 UniProt ID:
 P08684

Cytogenetics: 7q22.1

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, P450, Transmembrane

Protein Pathways: Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Linoleic acid

metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol

metabolism

Gene Summary: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The

cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the

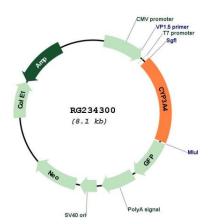
drugs in use today, including acetaminophen, codeine, cyclosporin A, diazepam,

erythromycin, and chloroquine. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4. Alternatively spliced transcript variants

encoding different isoforms have been identified. [provided by RefSeq, Aug 2020]



Product images:



Circular map for RG234300