Product datasheet for RC204605L1

Cytochrome P450 2C8 (CYP2C8) (NM_000770) Human Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytochrome P450 2C8 (CYP2C8) (NM_000770) Human Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Cytochrome P450 2C8
Synonyms:	CPC8; CYP2C8DM; CYPIIC8; MP-12/MP-20
Mammalian Cell Selection:	None
Vector:	pLenti-C-Myc-DDK (PS100064)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC204605).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   Mlu I
--- GCG ATC GC C ATG ---//--- NNŇ* ACG CGT ---

Kozak Consensus

EcoR I   BamH I   RBS   Sgf I   ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

Mlu I   Not I   Xho I   Myc.Tag
--- --- --- --- --- --- NNŇ ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
                         T   R   T   R   P   L   E   Q   K   L   I   S   E   E

DDK.Tag
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGCC
 D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V Stop

* The last codon before the Stop codon of the ORF.

ACCN:	NM_000770
ORF Size:	1470 bp

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OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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:	NM_000770.3, NP_000761.3
RefSeq Size:	1924 bp
RefSeq ORF:	1473 bp
Locus ID:	1558
UniProt ID:	P10632
Cytogenetics:	10q23.33
Domains:	p450
Protein Families:	Druggable Genome, P450, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism
MW:	55.8 kDa

Gene Summary: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which 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 phenobarbital. The enzyme is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, benzo(a)pyrene, 7-ethyoxycoumarin, and the anti-cancer drug taxol. This gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. Several transcript variants encoding a few different isoforms have been found for this gene. [provided by RefSeq, Nov 2010]

Product images:
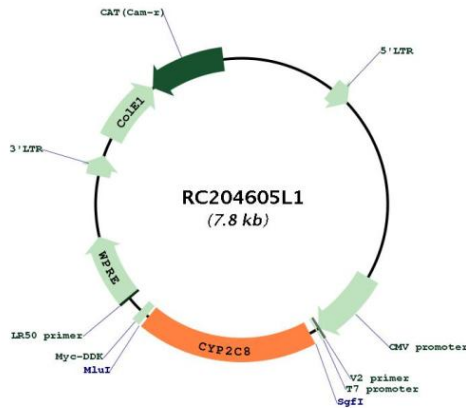
Circular map for RC204605L1
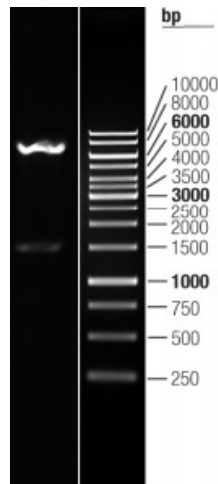
Double digestion of RC204605L1 using SgfI and MluI