

Product datasheet for RC202172L1

OriGene Technologies, Inc.

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Cytochrome P450 Reductase (POR) (NM_000941) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Cytochrome P450 Reductase (POR) (NM_000941) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: Cytochrome P450 Reductase

Synonyms: CPR; CYPOR; P450R

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

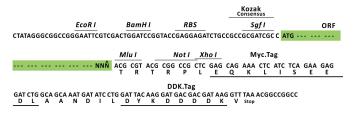
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC202172).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





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

ACCN: NM_000941

ORF Size: 2040 bp



Cytochrome P450 Reductase (POR) (NM_000941) Human Tagged Lenti ORF Clone - RC202172L1

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 000941.2</u>, <u>NP 000932.1</u>

 RefSeq Size:
 2509 bp

 RefSeq ORF:
 2043 bp

 Locus ID:
 5447

 UniProt ID:
 P16435

Cytogenetics: 7q11.23

Domains: flavodoxin, NAD binding 1, FAD binding 1

Protein Families: Druggable Genome, P450, Transmembrane

MW: 77.1 kDa

Gene Summary: This gene encodes an endoplasmic reticulum membrane oxidoreductase that is essential for

multiple metabolic processes, including reactions catalyzed by cytochrome P450 proteins for metabolism of steroid hormones, drugs and xenobiotics. The encoded protein has a flavin adenine dinucleotide (FAD)-binding domain and a flavodoxin-like domain which bind two cofactors, FAD and FMN, that allow it to donate electrons directly from NADPH to all

microsomal P450 enzymes. Mutations in this gene cause a complex set of disorders, including

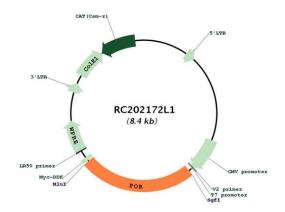
apparent combined P450C17 and P450C21 deficiency, amenorrhea and disordered

steroidogenesis, congenital adrenal hyperplasia and Antley-Bixler syndrome, that resemble those caused by defects in steroid metabolizing enzymes such as aromatase, 21-hydroxylase,

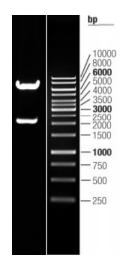
and 17 alpha-hydroxylase. [provided by RefSeq, Aug 2020]



Product images:



Circular map for RC202172L1



Double digestion of RC202172L1 using Sgfl and Mlul