

## Active Recombinant human POR Protein, His-tagged

Cat. No. POR-01H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human POR (1-680aa), fused to His-tag at C-terminus, was Recombinant human POR protein expressed in insect cell and purified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>ProteinLength</b>	1-680aa
<b>Description</b>	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.
<b>Form</b>	Liquid
<b>Bio-activity</b>	Specific activity is > 4000 pmol/min/mg, and is defined as the amount of enzyme that

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	catalyze the reduction of 1.0 pmole cytochrome C by NADPH per minute at pH8.0 at 25 centigrade.
<b>Molecular Mass</b>	77.9 kDa (686aa)
<b>AA Sequence</b>	<p>MINMGDSHVDTSSSTVSEAVAEVSLFSMTDMILFSLIVGLLTYWFLFRKKKEEVPEFT          KIQTLTSSVRESSFVEKMKKTGRNIIVFYGSQTGTAEFANRLSKDAHRYGMRGMSA          DPEEYDLADLSSLPEIDNALVFCMATYGECDPTDNAQDFYDWLQETDVDLSGVKF          AVFGLGNKTYEHFNAMGKYVDKRLEQLGAQRIFELGLGDDDDGNLEEDFITWREQFW          LAVCEHFGVEATGEESSIRQYELVVHTDIDAAKVYMGEMGRLKSYENQKPPFDAKN          PFLAAVTTNRKLNQGTERHLMHLELDISDSKIRYESGDHVAVYPANDSALVNQLGKIL          GADLDVVMNLNLDDESNKKHPFPCPTSYRTALTYLDITNPPRTNVLYELAQYASE          PSEQELLRKMASSSGEGKELYLSWVVEARRHILAILQDCPSLRPPIDHLCCELLPRLQA          RYYSIASSSKVHPNSVHICAVVVEYETKAGRINKGVATNWLRAKEPVGENGGRALVP          MFVRKSQFRLPFKATTPVIMVGPVGTGAPVFIGFIQERAWLRQQGKEVGETLLYYGC          RRSDEDYLYREELAQFHRDGALTQLNVAFSREQSHKVYVQHLLKQDREHLWKLIEG          GAHIYVCGDARNMARDVQNTFYDIVAELGAMEHAQAVDYIKKLMTKGRYSLDVWS</p>
<b>Endotoxin</b>	< 1 EU/μg of protein (determined by LAL method)
<b>Purity</b>	> 95% by SDS-PAGE
<b>Applications</b>	SDS-PAGE, Enzyme Activity
<b>Storage</b>	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
<b>Concentration</b>	0.25 mg/mL (determined by absorbance at 280nm)
<b>Storage Buffer</b>	Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

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## GENE INFORMATION

**Gene Name** POR cytochrome p450 oxidoreductase [ Homo sapiens (human) ]

**Official Symbol** POR

**Synonyms** POR; cytochrome p450 oxidoreductase; CPR; CYPOR; P450R; NADPH--cytochrome P450 reductase; NADPH--hemoprotein reductase; NADPH-dependent cytochrome P450 reductase; P450 (cytochrome) oxidoreductase; EC 1.6.2.4

**Gene ID** 5447

**mRNA Refseq** NM\_001395413

**Protein Refseq** NP\_001382342

**MIM** 124015

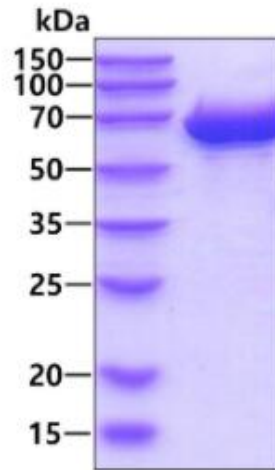
**UniProt ID** P16435

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**SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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