

Active Recombinant human POR Protein, His-tagged

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	Insect Cells
ProteinLength	1-680aa
Description	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.
Form	Liquid
Bio-activity	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.
Molecular Mass	77.9 kDa (686aa)
AA Sequence	MINMGDSHVDTSSTVSEAVAEVSLFSMTDMILFSLIVGLLTYWFLFRKKKEEVPEFT KIQTLTSSVRESSFVEKMKKTGRNIIVFYGSQTGTAEFANRLSKDAHRYGMRGMSA DPEEYDLADLSSLPEIDNALVFCMATYGEDPTDNAQDFYDWLQETDVDLSGVKF AVFGLGNKTYEHFNAMGKYVDKRLEQLGAQRIFELGLGDDDDGNLEEDFITWREQFW LAVCEHFGVEATGEESSIRQYELVVHTDIDAAKVYMGEMGRLKSYENQKPPFDAKN PFLAAVTTNRKLNQGTERHLMHLELDISDSKIRYESGDHVAVYPANDSALVNQLGKIL GADLDVVMNLNDEESNKKHPFPCPTSYRTALTYLDITNPPRTNVLYELAQYASE PSEQELLRKMASSSGEGKELYLSWVVEARRHILAILQDCPSLRPPIDHLCCELLPRLQA RYYSIASSSKVHPNSVHICAVVVEYETKAGRINKGVATNWLRAKEPVGENGGRALVP MFVRKSQFRLPFKATTPVIMVGPGTGVAFIGFIQERAWLRQQGKEVGETLLYYGC RRSDEDYLYREELAQFHRDGALTQLNVAFSREQSHKVYVQHLLKQDREHLWKLIEG GAHIYVCGDARNMARDVQNTFYDIVAELGAMEHAQAVDYIKKLMTKGRYSLDVWS
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 95% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	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.
Concentration	0.25 mg/mL (determined by absorbance at 280nm)
Storage Buffer	Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

GENE INFORMATION

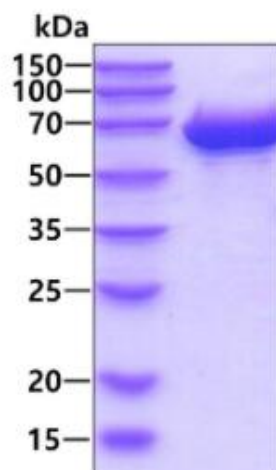
Gene Name	POR cytochrome p450 oxidoreductase [Homo sapiens (human)]
Official Symbol	POR
Synonyms	POR; cytochrome p450 oxidoreductase; CPR; CYPOR; P450R; NADPH--cytochrome P450 reductase; NADPH--hemoprotein reductase; NADPH-dependent cytochrome P450 reductase; P450 (cytochrome) oxidoreductase; EC 1.6.2.4
Gene ID	5447
mRNA Refseq	NM_001395413
Protein Refseq	NP_001382342
MIM	124015
UniProt ID	P16435

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SDS-PAGE



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

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