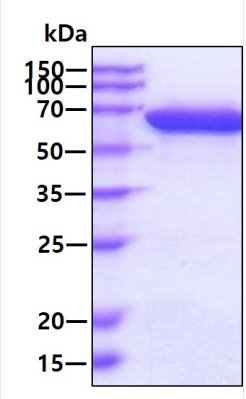
POR Recombinant Protein

PRODUCT OVERVIEW

Product Name	POR, Recombinant Protein
Full Product Name	POR
Product Gene Name	POR recombinant protein
Product Synonym Names	NADPH-cytochrome P450 reductase; NADPH-cytochrome P450 reductase; CPR; CYPOR; P450R
Sequence	MINMGDSHVD TSSTVSEAVA EEVSLFSMTD MILFSLIVGL LTYWFLFRKK KEEVPEFTKI QTLTSSVRES SFVEKMKKTG RNIIVFYGSQ TGTAEEFANR LSKDAHRYGM RGMSADPEEY DLADLSSLPE IDNALVVFCM ATYGEGDPTD NAQDFYDWLQ ETDVDLSGVK FAVFGLGNKT YEHFNAMGKY VDKRLEQLGA QRIFELGLGD DDGNLEEDFI TWREQFWLAV CEHFGVEATG EESSIRQYEL VVHTDIDAAK VYMGEMGRLK SYENQKPPFD AKNPFLAAVT TNRKLNQGTE RHLMHLELDI SDSKIRYESG DHVAVYPAND SALVNQLGKI LGADLDVVMS LNNLDEESNK KHPFPCPTSY RTALTYYLDI TNPPRTNVLY ELAQYASEPS EQELLRKMAS SSGEGKELYL SWVVEARRHI LAILQDCPSL RPPIDHLCEL LPRLQARYYS IASSSKVHPN SVHICAVVVE YETKAGRINK GVATNWLRAK EPVGENGGRA LVPMFVRKSQ FRLPFKATTP VIMVGPGTGV APFIGFIQER AWLRQQGKEV GETLLYYGCR RSDEDYLYRE ELAQFHRDGA LTQLNVAFSR EQSHKVYVQH LLKQDREHLW KLIEGGAHIY VCGDARNMAR DVQNTFYDIV AELGAMEHAQ AVDYIKKLMT KGRYSLDVWS < HHHHHH >
Host	Baculovirus
Form/Format	Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol
Purity/Purification	>95% by SDS - PAGE
Concentration	0.25mg/ml (determined by Absorbance at 280nm) (lot specific)
Preparation and Storage	Can be stored at 2 degree C to 8 degree C for 1 week. For long term storage, aliquot and store at -20 degree C to -80 degree C. Avoid repeated freezing and thawing cycles.
Molecular Weight	77.9kDa (686aa)
Sequence Positions	1-680aa
OMIM	124015
3D Structure	ModBase 3D Structure for P16435
Antigen Species	Human
Tag	His-Tag
Endotoxin	<1 EU per 1ug of protein (determined by LAL method)
Product Categories/Family for POR recombinant protein	Cardiovascular
Applications Tested/Suitable for POR recombinant protein	SDS-PAGE
Related Product Information for POR recombinant protein	POR, also known as NADPH--cytochrome P450 reductase, is a flavoprotein that donates electrons to all microsomal P450 enzymes. POR is localized to the endoplasmic reticulum, where it is also able to transfer electrons to heme oxygenase and cytochrome b5. It is structurally related to two separate flavoprotein families, ferredoxin nucleotide reductase and flavodoxin. Recombinant human POR, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Product References and Citations for POR recombinant protein	Shen A L,et al. (1989). J Biol Chem. 264:7584-7589.; Haniju M,et al. (1989). Biochemistry. 28:8639-8645.

Other Notes	Small volumes of POR recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for POR purchase	MBS201186 is a recombinant protein targeting POR. Host: Baculovirus.



SDS-Page of POR recombinant protein
3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for POR. It may not necessarily be applicable to this product.

NCBI GI #	127139033
NCBI GeneID	5447
NCBI Accession #	NP_000932
UniProt Primary Accession #	P16435
UniProt Related Accession #	P16435
GenBank Nucleotide #	NP_000932.3
NCBI Official Full Name	NADPH--cytochrome P450 reductase isoform 1
NCBI Official Synonym Full Names	cytochrome p450 oxidoreductase
NCBI Official Symbol	POR
NCBI Official Synonym Symbols	CPR; CYPOR; P450R
UniProt Protein Name	NADPH--cytochrome P450 reductase
Protein Family	Light-dependent protochlorophyllide reductase
UniProt Gene Name	POR
UniProt Synonym Gene Names	CPR; P450R
UniProt Entry Name	NCPR_HUMAN
NCBI Protein Information	NADPH--cytochrome P450 reductase
NCBI Summary for POR	This gene encodes an endoplasmic reticulum membrane oxidoreductase with an FAD-binding domain and a flavodoxin-like domain. The protein binds two cofactors, FAD and FMN, which allow it to donate electrons directly from NADPH to all microsomal P450 enzymes. Mutations in this gene have been associated with various diseases, including apparent combined P450C17 and P450C21 deficiency, amenorrhea and disordered steroidogenesis, congenital adrenal hyperplasia and Antley-Bixler syndrome. [provided by RefSeq, Jul 2008]

UniProt Comments for POR	POR: This enzyme is required for electron transfer from NADP to cytochrome P450 in microsomes. It can also provide electron transfer to heme oxygenase and cytochrome B5. Defects in POR are the cause of Antley-Bixler syndrome with genital anomalies and disordered steroidogenesis (ABS1). A disease characterized by the association of Antley-Bixler syndrome with steroidogenesis defects and abnormal genitalia. Antley-Bixler syndrome is characterized by craniosynostosis, radiohumeral synostosis present from the perinatal period, midface hypoplasia, choanal stenosis or atresia, femoral bowing and multiple joint contractures. Defects in POR are the cause of disordered steroidogenesis due to cytochrome P450 oxidoreductase deficiency (DISPORD). A disorder resulting in a rare variant of congenital adrenal hyperplasia, with apparent combined P450C17 and P450C21 deficiency and accumulation of steroid metabolites. Affected girls are born with ambiguous genitalia, but their circulating androgens are low and virilization does not progress. Conversely, affected boys are sometimes born undermasculinized. Boys and girls can present with bone malformations, in some cases resembling the pattern seen in patients with Antley-Bixler syndrome. Protein type: EC 1.6.2.4; Endoplasmic reticulum; Mitochondrial; Oxidoreductase Chromosomal Location of Human Ortholog: 7q11.2 Cellular Component: endoplasmic reticulum membrane; intracellular membrane-bound organelle; membrane Molecular Function: [methionine synthase] reductase activity; NADPH-hemoprotein reductase activity; protein binding Biological Process: positive regulation of monooxygenase activity; xenobiotic metabolic process Disease: Antley-bixler Syndrome With Genital Anomalies And Disordered Steroidogenesis; Antley-bixler Syndrome Without Genital Anomalies Or Disordered Steroidogenesis; Disordered Steroidogenesis Due To Cytochrome P450 Oxidoreductase Deficiency
Research Articles on POR	**1.** Clinical characteristics and CYP3A5/CYP3A4/POR genotypes were collected.
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