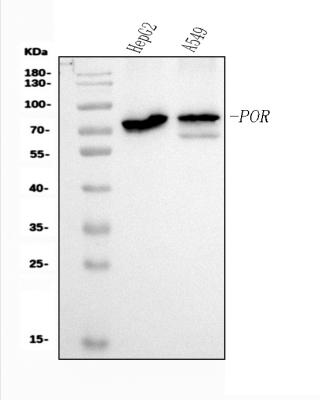
POR Antibody – Mouse Monoclonal

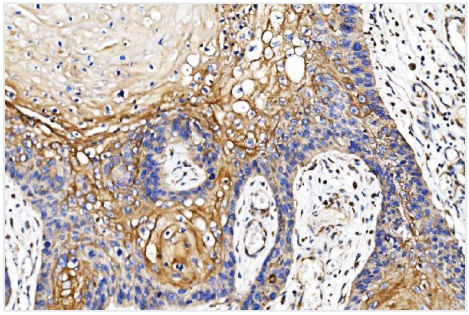
PRODUCT OVERVIEW

Product Name	POR, Monoclonal Antibody
Full Product Name	Anti-POR Antibody Picoband (monoclonal, 7F5)
Product Gene Name	anti-POR antibody
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	7F5
Host	Mouse
Species Reactivity	Human
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Molecular Weight	76,690 Da
OMIM	124015
3D Structure	ModBase 3D Structure for P16435
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human POR (633-668aa RNMARDVQNTFYDIVAELGAMEHAQAVDYIKKLMTK), different from the related mouse and rat sequences by five amino acids.
Product Categories/Family for anti-POR antibody	Primary Antibodies, Mouse Monoclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-POR antibody	Western Blot (WB), Immunohistochemistry (IHC), Flow Cytometry (FC/FACS)
Application Notes for anti-POR antibody	WB: 0.25-0.5 ug/ml, Human IHC-P: 2-5 ug/ml, Human FC/FACS: 1-3 ug/1x10^6 cells, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Mouse IgG (#MBS176445) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (#MBS176472) for IHC(P).
Related Product Information for anti-POR antibody	POR is a membrane-boundenzyme required for electron transfer from NADPH to cytochrome P450 in the endoplasmic reticulum of theeukaryotic cell. The 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.

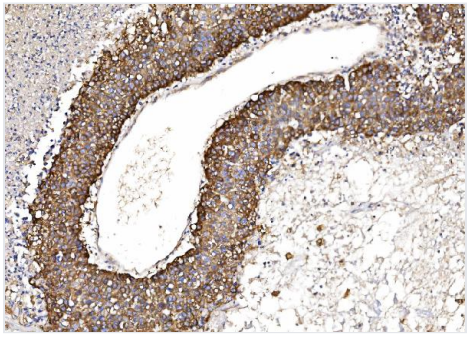
Other Notes	Small volumes of anti-POR antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for POR purchase	MBS1756960 is an antibody targeting POR. Also known as Anti-POR Antibody Picoband (monoclonal, 7F5). Reactive in Human. Host: Mouse.



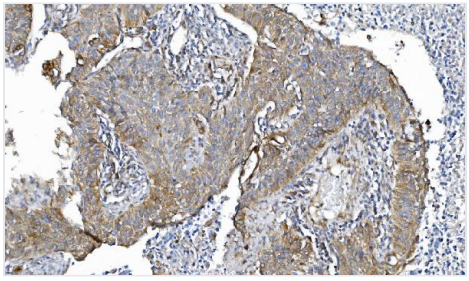
Western Blot (WB) of anti-POR antibody
Figure 1. Western blot analysis of POR using anti-POR antibody (MBS1756960).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HepG2 whole cell lysates,Lane 2: human A549 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-POR antigen affinity purified monoclonal antibody (#MBS1756960) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for POR at approximately 77 kDa. The expected band size for POR is at 77 kDa.



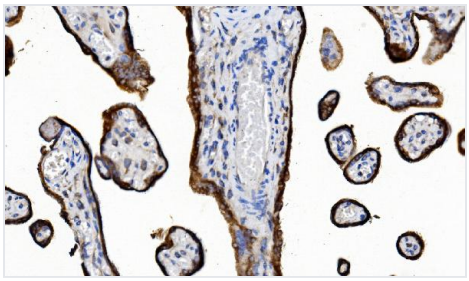
Immunohistochemistry (IHC) of anti-POR antibody
Figure 2. IHC analysis of POR using anti-POR antibody (MBS1756960).POR was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-POR Antibody (MBS1756960) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (#SA1021) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-POR antibody
Figure 3. IHC analysis of POR using anti-POR antibody (MBS1756960).POR was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-POR Antibody (MBS1756960) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (#SA1021) with DAB as the chromogen.

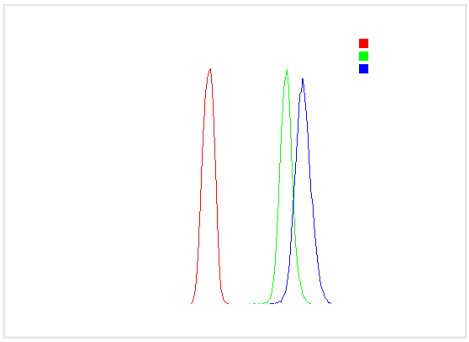


Immunohistochemistry (IHC) of anti-POR antibody
Figure 4. IHC analysis of POR using anti-POR antibody (MBS1756960).POR was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-POR Antibody (MBS1756960) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (#SA1021) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-POR antibody

Figure 5. IHC analysis of POR using anti-POR antibody (MBS1756960).POR was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-POR Antibody (MBS1756960) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (#SA1021) with DAB as the chromogen.



Flow Cytometry (FC/FACS) of anti-POR antibody

Figure 6. Flow Cytometry analysis of SiHa cells using anti-POR antibody (MBS1756960).Overlay histogram showing SiHa cells stained with MBS1756960 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-POR Antibody (MBS1756960, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG (MBS177407, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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_000932.3
UniProt Primary Accession #	P16435
UniProt Secondary Accession #	Q16455; Q197M5; Q8N181; Q9H3M8; Q9UDT3
UniProt Related Accession #	P16435
GenBank Nucleotide #	NM_000941.2
NCBI Official Full Name	NADPH--cytochrome P450 reductase
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

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
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