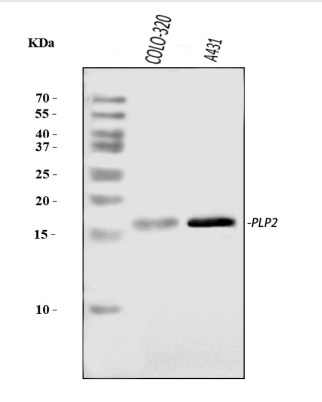
PLP2 Antibody – Rabbit Polyclonal

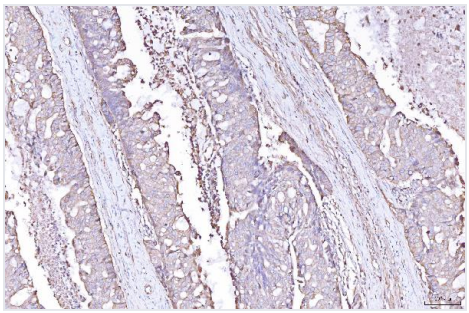
PRODUCT OVERVIEW

Product Name	PLP2, Polyclonal Antibody
Full Product Name	Anti-PLP2 Antibody Picoband
Product Gene Name	anti-PLP2 antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 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	16,691 Da
OMIM	300112
3D Structure	ModBase 3D Structure for Q04941
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human PLP2 recombinant protein (Position: N18-V152).
Product Categories/Family for anti-PLP2 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-PLP2 antibody	Western Blot (WB), Immunohistochemistry (IHC), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-PLP2 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 Direct ELISA: 0.1-0.5 ug/ml, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Rabbit IgG (#MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (#MBS176453) for IHC(P).
Related Product Information for anti-PLP2 antibody	Proteolipid protein 2 is a protein that in humans is encoded by the PLP2 gene. This gene encodes an integral membrane protein that localizes to the endoplasmic reticulum in colonic epithelial cells. The encoded protein can multimerize and may function as an ion channel. A polymorphism in the promoter of this gene may be linked to an increased risk of X-linked cognitive disability. A pseudogene of this gene is found on chromosome 5.
Other Notes	Small volumes of anti-PLP2 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 PLP2 purchase	MBS1755517 is an antibody targeting PLP2. Also known as Anti-PLP2 Antibody Picoband. Reactive in Human. Host: Rabbit.



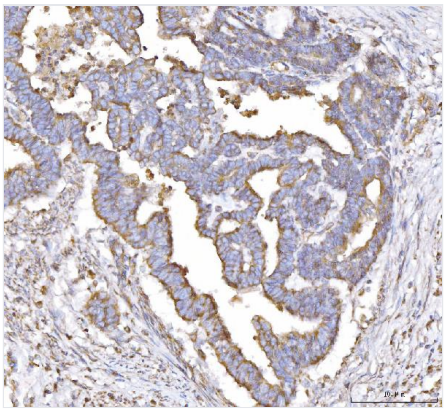
Western Blot (WB) of anti-PLP2 antibody

Figure 1. Western blot analysis of PLP2 using anti-PLP2 antibody (MBS1755517).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 COLO320 whole cell lysates,Lane 2: human A431 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 rabbit anti-PLP2 antigen affinity purified polyclonal antibody (#MBS1755517) 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-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 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 PLP2 at approximately 17 kDa. The expected band size for PLP2 is at 17 kDa.



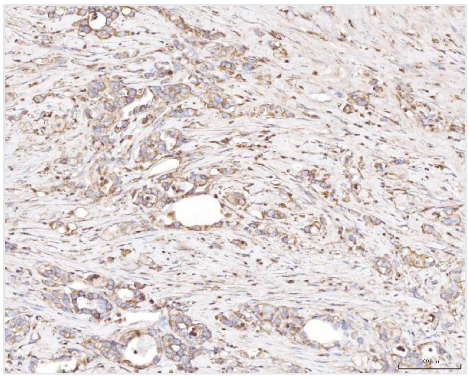
Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 2. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 was detected in a paraffin-embedded section of human adenocarcinoma of the right colon 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



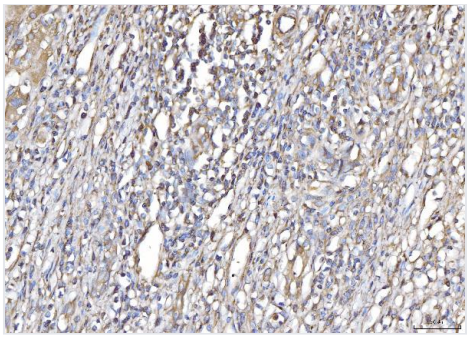
Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 3. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 was detected in a paraffin-embedded section of human cervical 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



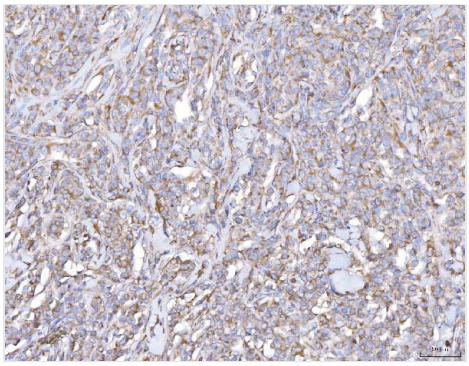
Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 4. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 was detected in a paraffin-embedded section of human gastric 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



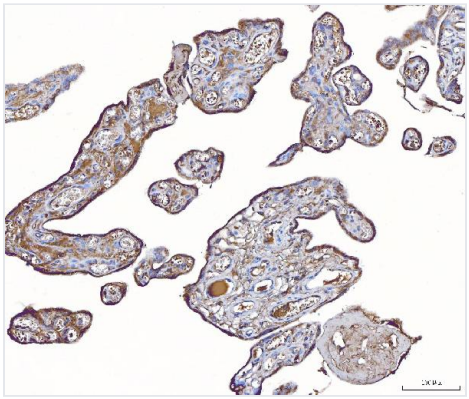
Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 5. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 6. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 was detected in a paraffin-embedded section of human lymphoma 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-PLP2 antibody

Figure 7. IHC analysis of PLP2 using anti-PLP2 antibody (MBS1755517).PLP2 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 rabbit anti-PLP2 Antibody (MBS1755517) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



Flow Cytometry (FC/FACS) of anti-PLP2 antibody

Figure 8. Flow Cytometry analysis of Daudi cells using anti-PLP2 antibody (MBS1755517).Overlay histogram showing Daudi cells stained with MBS1755517 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PLP2 Antibody (MBS1755517, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit 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 PLP2. It may not necessarily be applicable to this product.

NCBI GI #	4505893
NCBI GeneID	5355
NCBI Accession #	NP_002659.1
UniProt Primary Accession #	Q04941
UniProt Secondary Accession #	Q32MM8; A6NDT7
UniProt Related Accession #	Q04941
GenBank Nucleotide #	NM_002668.2
NCBI Official Full Name	proteolipid protein 2
NCBI Official Synonym Full Names	proteolipid protein 2 (colonic epithelium-enriched)

NCBI Official Symbol	PLP2
NCBI Official Synonym Symbols	A4; A4LSB
UniProt Protein Name	Proteolipid protein 2
UniProt Synonym Protein Names	Differentiation-dependent protein A4; Intestinal membrane A4 protein
Protein Family	Patatin-like protein
UniProt Gene Name	PLP2
UniProt Synonym Gene Names	A4
UniProt Entry Name	PLP2_HUMAN
NCBI Protein Information	proteolipid protein 2; intestinal membrane A4 protein; A4 differentiation-dependent protein; differentiation-dependent protein A4
NCBI Summary for PLP2	This gene encodes an integral membrane protein that localizes to the endoplasmic reticulum in colonic epithelial cells. The encoded protein can multimerize and may function as an ion channel. A polymorphism in the promoter of this gene may be linked to an increased risk of X-linked mental retardation. A pseudogene of this gene is found on chromosome 5. [provided by RefSeq, Jan 2010]
UniProt Comments for PLP2	PLP2: May play a role in cell differentiation in the intestinal epithelium. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Endoplasmic reticulum; Membrane protein, multi-pass; Cell development/differentiation Chromosomal Location of Human Ortholog: Xp11.23 Cellular Component: endoplasmic reticulum membrane; membrane; endoplasmic reticulum; integral to membrane; plasma membrane Molecular Function: protein binding; ion transmembrane transporter activity; chemokine binding Biological Process: cytokine and chemokine mediated signaling pathway; ion transport; chemotaxis
Research Articles on PLP2	**1.** This work ascribes a critical function to PLP2 for viral ligase activity and underlines the power of non-lethal haploid genetic screens in human cells to identify the genes involved in pathogen manipulation of the host immune system.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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