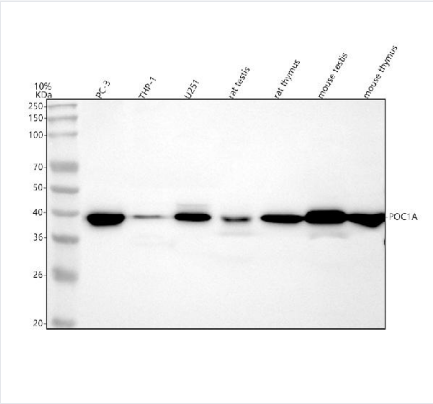
POC1A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

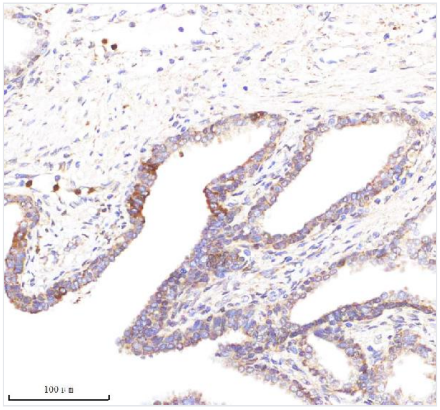
Product Name	POC1A, Polyclonal Antibody
Full Product Name	Anti-POC1A Antibody Picoband
Product Gene Name	anti-POC1A antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Preparation and Storage	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	40,936 Da
OMIM	AK075289 mRNA
3D Structure	ModBase 3D Structure for Q8NBT0
Immunogen	E coli-derived human POC1A recombinant protein (Position: A6-D371). Human POC1A shares 91% amino acid (aa) sequence identity with mouse POC1A.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Product Categories/Family for anti-POC1A antibody	Primary Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-POC1A antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-POC1A antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat IHC: 2-5ug/ml, Human, Mouse, Rat ICC/IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-POC1A antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-POC1A antibody	1. Hames, R. S., Hames, R., Prosser, S. L., Euteneuer, U., Lopes, C. A. M., Moore, W., Woodland, H. R., Fry, A. M. Pix1 and Pix2 are novel WD40 microtubule-associated proteins that colocalize with mitochondria in Xenopus germ plasm and centrosomes in human cells. Exp. Cell Res. 314: 574-589, 2008.2. Keller, L. C., Geimer, S., Romijn, E., Yates, J., III, Zamora, I., Marshall, W. F. Molecular architecture of the centriole proteome: the conserved WD40 domain protein POC1 is required for centriole duplication and length control. Molec. Biol. Cell 20: 1150-1166, 2009.3. Sarig, O., Nahum, S., Rapaport, D., Ishida-Yamamoto, A., Fuchs-Telem, D., Qiaoli, L., Cohen-Katsenelson, K., Spiegel, R., Nousbeck, J., Israeli, S., Borochowitz, Z.-U., Padalon-Brauch, G., Uitto, J., Horowitz, M., Shalev, S., Sprecher, E. Short stature, onychodysplasia, facial dysmorphism, and hypotrichosis syndrome is caused by a POC1A mutation. Am. J. Hum. Genet. 91: 337-342, 2012.

Other Notes	Small volumes of anti-POC1A 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 POC1A purchase	MBS1758947 is an antibody targeting POC1A. Also known as Anti-POC1A Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



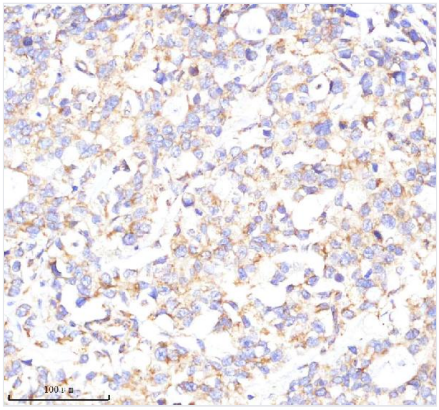
Western Blot (WB) of anti-POC1A antibody

Figure 1. Western blot analysis of POC1A using anti-POC1A antibody (MBS1758947).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 PC-3 whole cell lysates,Lane 2: human THP-1 whole cell lysates,Lane 3: human U251 whole cell lysates,Lane 4: rat testis tissue lysates,Lane 5: rat thymus tissue lysates,Lane 6: mouse testis tissue lysates,Lane 7: mouse thymus tissue 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-POC1A antigen affinity purified polyclonal antibody (#MBS1758947) at 0.5ug/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 (#MBS176460) with Tanon 5200 system. A specific band was detected for POC1A at approximately 40 kDa. The expected band size for POC1A is at 45 kDa.



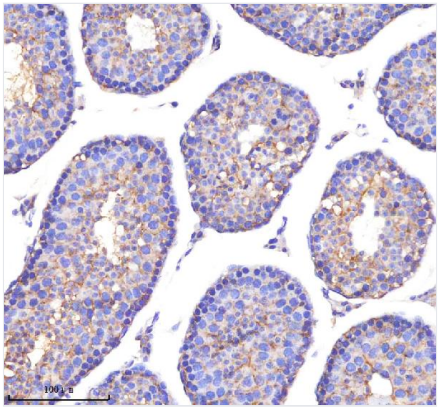
Immunohistochemistry (IHC) of anti-POC1A antibody

Figure 2. IHC analysis of POC1A using anti-POC1A antibody (MBS1758947).POC1A was detected in a paraffin-embedded section of human prostate 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 2ug/ml rabbit anti-POC1A Antibody (MBS1758947) 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 (#MBS176453) with DAB as the chromogen.



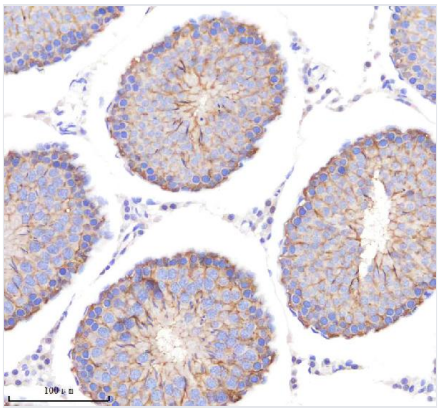
Immunohistochemistry (IHC) of anti-POC1A antibody

Figure 3. IHC analysis of POC1A using anti-POC1A antibody (MBS1758947).POC1A was detected in a paraffin-embedded section of human stomach 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 2ug/ml rabbit anti-POC1A Antibody (MBS1758947) 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 (#MBS176453) with DAB as the chromogen.

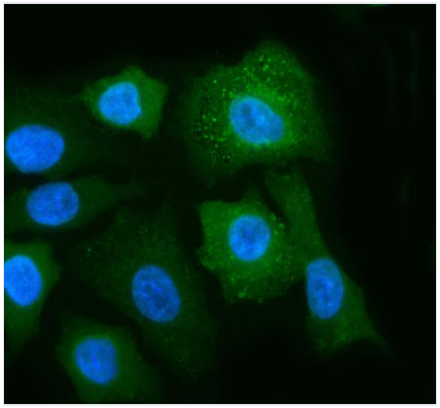


Immunohistochemistry (IHC) of anti-POC1A antibody

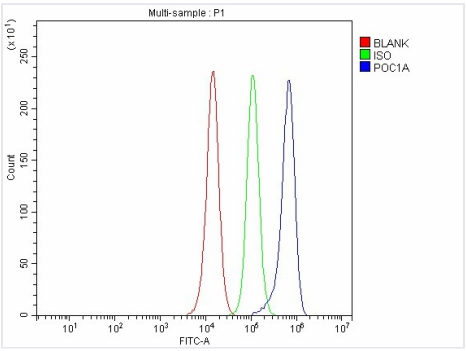
Figure 4. IHC analysis of POC1A using anti-POC1A antibody (MBS1758947).POC1A was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-POC1A Antibody (MBS1758947) 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 (#MBS176453) with DAB as the chromogen.



Immunohistochemistry (IHC) of anti-POC1A antibody
Figure 5. IHC analysis of POC1A using anti-POC1A antibody (MBS1758947).POC1A was detected in a paraffin-embedded section of rat testis 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 2ug/ml rabbit anti-POC1A Antibody (MBS1758947) 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 (#MBS176453) with DAB as the chromogen.



Immunofluorescence (IF) of anti-POC1A antibody
Figure 6. IF analysis of POC1A using anti-POC1A antibody (MBS1758947).POC1A was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-POC1A Antibody (MBS1758947) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG (MBS177405) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-POC1A antibody
Figure 7. Flow Cytometry analysis of PC-3 cells using anti-POC1A antibody (MBS1758947).Overlay histogram showing PC-3 cells stained with MBS1758947 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-POC1A Antibody (MBS1758947, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for POC1A. It may not necessarily be applicable to this product.

NCBI GI #	239787760
NCBI GeneID	25886
NCBI Accession #	NP_001155052.1
UniProt Primary Accession #	Q8NBT0
UniProt Secondary Accession #	Q0VDF8; Q2TAK6; Q96IK6; Q9UFJ8; A4FUW4; E9PFC6
UniProt Related Accession #	Q8NBT0
GenBank Nucleotide #	NM_001161580.1
NCBI Official Full Name	POC1 centriolar protein homolog A isoform 2

NCBI Official Synonym Full Names	POC1 centriolar protein A
NCBI Official Symbol	POC1A
NCBI Official Synonym Symbols	PIX2; SOFT; WDR51A
UniProt Protein Name	POC1 centriolar protein homolog A
UniProt Synonym Protein Names	Pix2; Proteome of centriole protein 1A; WD repeat-containing protein 51A
Protein Family	POC1 centriolar protein
UniProt Gene Name	POC1A
UniProt Synonym Gene Names	WDR51A
NCBI Protein Information	POC1 centriolar protein homolog A
NCBI Summary for POC1A	POC1 proteins contain an N-terminal WD40 domain and a C-terminal coiled coil domain and are part of centrosomes. They play an important role in basal body and cilia formation. This gene encodes one of the two POC1 proteins found in humans. Mutations in this gene result in short stature, onychodysplasia, facial dysmorphism, and hypotrichosis (SOFT) syndrome. [provided by RefSeq, Sep 2012]
UniProt Comments for POC1A	WDR51A: POC1 proteins contain an N-terminal WD40 domain and a C-terminal coiled coil domain and are part of centrosomes. They play an important role in basal body and cilia formation. This gene encodes one of the two POC1 proteins found in humans. Mutations in this gene result in short stature, onychodysplasia, facial dysmorphism, and hypotrichosis (SOFT) syndrome. [provided by RefSeq, Sep 2012] Chromosomal Location of Human Ortholog: 3p21.2 Cellular Component: centriole; centrosome; spindle pole Molecular Function: protein binding Biological Process: mitotic spindle organization and biogenesis; spermatogenesis Disease: Short Stature, Onychodysplasia, Facial Dysmorphism, And Hypotrichosis
Research Articles on POC1A	**1.** we report the first patient with SOFT syndrome harboring compound heterozygous variants of POC1A. understanding POC1A mutations may provide appropriate management and genetic counseling to these patients and their families.
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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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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