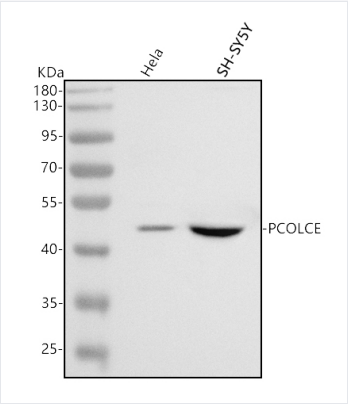
PCOLCE Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

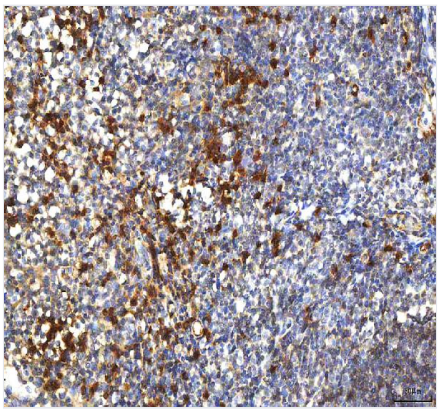
Product Name	PCOLCE, Polyclonal Antibody
Full Product Name	Anti-PCOLCE Antibody Picoband
Product Gene Name	anti-PCOLCE antibody
Product Synonym Names	Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody
Clonality	Polyclonal
Isotype	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.
Specificity	Expressed in all tissues.
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	47,972 Da
OMIM	600270
3D Structure	ModBase 3D Structure for Q15113
Immunogen	E coli-derived human PCOLCE recombinant protein (Position: R162-D449). Human PCOLCE shares 75.6% and 76.3% amino acid (aa) sequence identity with mouse and rat PCOLCE, respectively.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Product Categories/Family for anti-PCOLCE antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-PCOLCE antibody	Western Blot (WB), Immunohistochemistry (IHC), Flow Cytometry (FC/FACS), ELISA (EIA)

Application Notes for anti-PCOLCE antibody	WB: 0.25-0.5ug/ml, Human IHC: 2-5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-PCOLCE 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-PCOLCE antibody	1. Takahara, K., Kessler, E., Biniaminov, L., Brusel, M., Eddy, R. L., Jani-Sait, S., Shows, T. B., Greenspan, D. S. Type I procollagen COOH-terminal proteinase enhancer protein: identification, primary structure, and chromosomal localization of the cognate human gene (PCOLCE). J. Biol. Chem. 269: 26280-26285, 1994. 2. Takahara, K., Osborne, L., Elliott, R. W., Tsui, L.-C., Scherer, S. W., Greenspan, D. S. Fine mapping of the human and mouse genes for the type I procollagen COOH-terminal proteinase enhancer protein. Genomics 31: 253-256, 1996.
Other Notes	Small volumes of anti-PCOLCE 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 PCOLCE purchase	MBS1758711 is an antibody targeting PCOLCE. Also known as Anti-PCOLCE Antibody Picoband. Reactive in Human. Host: Rabbit.



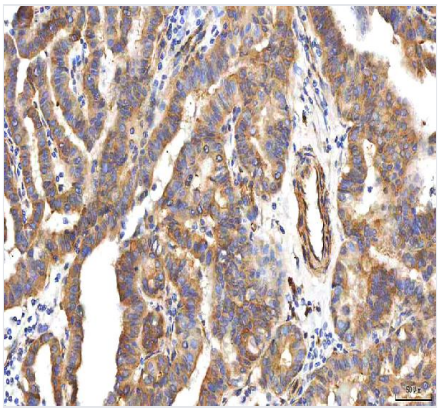
Western Blot (WB) of anti-PCOLCE antibody

Figure 1. Western blot analysis of PCOLCE using anti-PCOLCE antibody (MBS1758711).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 Hela whole cell lysates,Lane 2: human SH-SY5Y 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-PCOLCE antigen affinity purified polyclonal antibody (#MBS1758711) 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 PCOLCE at approximately 50 kDa. The expected band size for PCOLCE is at 48 kDa.

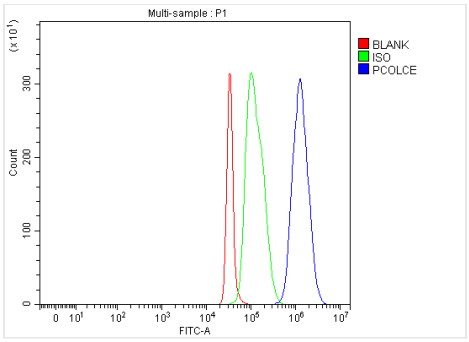


Immunohistochemistry (IHC) of anti-PCOLCE antibody

Figure 2. IHC analysis of PCOLCE using anti-PCOLCE antibody (MBS1758711).PCOLCE was detected in a paraffin-embedded section of human tonsil 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-PCOLCE Antibody (MBS1758711) 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-PCOLCE antibody
Figure 3. IHC analysis of PCOLCE using anti-PCOLCE antibody (MBS1758711).PCOLCE was detected in a paraffin-embedded section of human thyroid papillary 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 2ug/ml rabbit anti-PCOLCE Antibody (MBS1758711) 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.



Flow Cytometry (FC/FACS) of anti-PCOLCE antibody
Figure 4. Flow Cytometry analysis of SH-SY5Y cells using anti-PCOLCE antibody (MBS1758711).Overlay histogram showing SH-SY5Y cells stained with MBS1758711 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-PCOLCE Antibody (MBS1758711, 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 (Red line) was also used as a control.

ADDITIONAL DETAILS

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

NCBI GI #	157653329
NCBI GeneID	5118
NCBI Accession #	NP_002584.2
UniProt Primary Accession #	Q15113
UniProt Secondary Accession #	O14550; B2R9E1
UniProt Related Accession #	Q15113
GenBank Nucleotide #	NM_002593.3
NCBI Official Full Name	procollagen C-endopeptidase enhancer 1
NCBI Official Synonym Full Names	procollagen C-endopeptidase enhancer
NCBI Official Symbol	PCOLCE
NCBI Official Synonym Symbols	PCPE; PCPE1; PCPE-1
UniProt Protein Name	Procollagen C-endopeptidase enhancer 1
UniProt Synonym Protein Names	Procollagen COOH-terminal proteinase enhancer 1; PCPE-1; Procollagen C-proteinase enhancer 1; Type 1 procollagen C-proteinase enhancer protein; Type I procollagen COOH-terminal proteinase enhancer
Protein Family	Procollagen C-endopeptidase enhancer
UniProt Gene Name	PCOLCE
UniProt Synonym Gene Names	PCPE1; PCPE-1
UniProt Entry Name	PCOC1_HUMAN
NCBI Protein Information	procollagen C-endopeptidase enhancer 1; procollagen C-proteinase enhancer 1; procollagen COOH-terminal proteinase enhancer 1; type 1 procollagen C-proteinase enhancer protein; type I procollagen COOH-terminal proteinase enhancer; procollagen, type 1, COOH

NCBI Summary for PCOLCE	Fibrillar collagen types I-III are synthesized as precursor molecules known as procollagens. These precursors contain amino- and carboxyl-terminal peptide extensions known as N- and C-propeptides, respectively, which are cleaved, upon secretion of procollagen from the cell, to yield the mature triple helical, highly structured fibrils. This gene encodes a glycoprotein which binds and drives the enzymatic cleavage of type I procollagen and heightens C-proteinase activity. [provided by RefSeq, Jul 2008]
UniProt Comments for PCOLCE	PCOLCE: Binds to the C-terminal propeptide of type I procollagen and enhances procollagen C-proteinase activity. Protein type: Extracellular matrix; Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 7q22 Cellular Component: extracellular matrix; extracellular space Molecular Function: heparin binding; collagen binding; protein binding; protease activator activity Biological Process: multicellular organismal development; proteolysis
Research Articles on PCOLCE	**1.** The analysis of the PCPE-1 interaction network based on Gene Ontology terms suggests that, besides its role in collagen deposition, PCPE-1 might be involved in tumour growth, neurodegenerative diseases and angiogenesis.
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