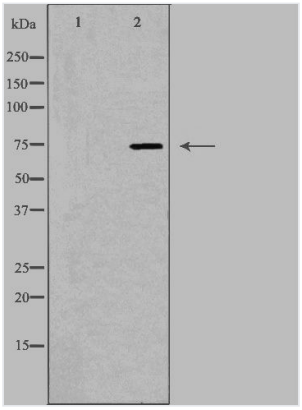
MELK Antibody – Rabbit Polyclonal

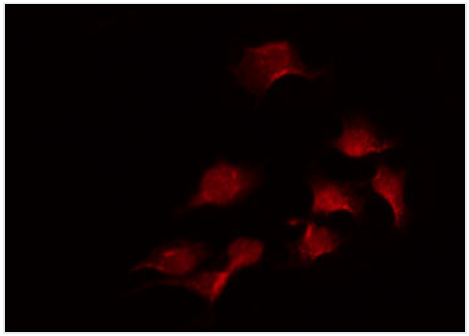
PRODUCT OVERVIEW

Product Name	MELK, Polyclonal Antibody
Full Product Name	MELK Antibody
Product Gene Name	anti-MELK antibody
Product Synonym Names	AI327312; hMELK; HPK 38; hPK38; KIAA0175; Likely ortholog of maternal embryonic leucine zipper kinase; Maternal embryonic leucine zipper kinase; MELK; MELK_HUMAN; mKIAA0175; MPK38; OTTHUMP00000021377; OTTHUMP00000046113; pEg3 kinase; Protein kinase Eg3; Protein kinase PK38; RP23 382O11.1; Tyrosine protein kinase MELK
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	MELK antibody detects endogenous levels of total MELK
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	MELK peptide (MBS9623457) is used for blocking the activity of MELK antibody (MBS9604740)
Molecular Weight	Observed: 75 kD Predicted: 75 kDa
3D Structure	ModBase 3D Structure for Q14680
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide
Subcellular Location	Plasma Membrane
Tissue Specificity	Expressed in placenta, kidney, thymus, testis, ovary and intestine.
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MELK antibody	Western Blot (WB), Immunofluorescence (IF), Immunocytochemistry (ICC), ELISA (EIA)
Application Notes for anti-MELK antibody	WB: 1:500-1:1000 IF/ICC: 1:100-1:500

Related Product Information for anti-MELK antibody	Function: Serine/threonine-protein kinase involved in various processes such as cell cycle regulation, self-renewal of stem cells, apoptosis and splicing regulation. Has a broad substrate specificity; phosphorylates BCL2L14, CDC25B, MAP3K5/ASK1 and ZNF622. Acts as an activator of apoptosis by phosphorylating and activating MAP3K5/ASK1. Acts as a regulator of cell cycle, notably by mediating phosphorylation of CDC25B, promoting localization of CDC25B to the centrosome and the spindle poles during mitosis. Plays a key role in cell proliferation and carcinogenesis. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits BCL2L14, possibly leading to affect mammary carcinogenesis by mediating inhibition of the pro-apoptotic function of BCL2L14. Also involved in the inhibition of spliceosome assembly during mitosis by phosphorylating ZNF622, thereby contributing to its redirection to the nucleus. May also play a role in primitive hematopoiesis. Subunit Structure: Monomer. Interacts with ZNF622 and PPP1R8. Post-translational Modifications: Autophosphorylated: autophosphorylation of the T-loop at Thr-167 and Ser-171 is required for activation. Thr-478 phosphorylation during mitosis promotes interaction with PPP1R8 (Probable). Similarity: The KA1 domain mediates binding to phospholipids and targeting to membranes. Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily.
Other Notes	Small volumes of anti-MELK 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 MELK purchase	MBS9604740 is an antibody targeting MELK. Also known as MELK Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-MELK antibody
Western blot analysis of extracts from K562 cells, using MELK antibody.The lane on the left is treated with the antigen-specific peptide.



Immunofluorescene (IF) of anti-MELK antibody
MBS9604740 staining K562 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL DETAILS

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

NCBI GI #	375493532
NCBI GeneID	9833
NCBI Accession #	NP_001243614.1
UniProt Primary Accession #	Q14680
UniProt Secondary Accession #	A6P3A7; A6P3A8; B1AMQ6; B7Z1E6; B7Z5M5; B7Z6Q7; B7Z6R8; B7Z6Y0; B7Z7Q1; D3DRP8; F5H0Y0
UniProt Related Accession #	Q14680
GenBank Nucleotide #	NM_001256685.1
NCBI Official Full Name	maternal embryonic leucine zipper kinase isoform 2
NCBI Official Synonym Full Names	maternal embryonic leucine zipper kinase
NCBI Official Symbol	MELK
NCBI Official Synonym Symbols	HPK38

UniProt Protein Name	Maternal embryonic leucine zipper kinase
UniProt Synonym Protein Names	Protein kinase Eg3; pEg3 kinase; Protein kinase PK38; hPK38; Tyrosine-protein kinase MELK (EC:2.7.10.2)
Protein Family	Maternal embryonic leucine zipper kinase
UniProt Gene Name	MELK
UniProt Synonym Gene Names	KIAA0175; hMELK; pEg3 kinase; hPK38
NCBI Protein Information	maternal embryonic leucine zipper kinase
UniProt Comments for MELK	Serine/threonine-protein kinase involved in various processes such as cell cycle regulation, self-renewal of stem cells, apoptosis and splicing regulation. Has a broad substrate specificity; phosphorylates BCL2L14, CDC25B, MAP3K5/ASK1 and ZNF622. Acts as an activator of apoptosis by phosphorylating and activating MAP3K5/ASK1. Acts as a regulator of cell cycle, notably by mediating phosphorylation of CDC25B, promoting localization of CDC25B to the centrosome and the spindle poles during mitosis. Plays a key role in cell proliferation and carcinogenesis. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits BCL2L14, possibly leading to affect mammary carcinogenesis by mediating inhibition of the pro-apoptotic function of BCL2L14. Also involved in the inhibition of spliceosome assembly during mitosis by phosphorylating ZNF622, thereby contributing to its redirection to the nucleus. May also play a role in primitive hematopoiesis.
Research Articles on MELK	**1.** Study demonstrates that the interaction occurring between MELK and EZH2 promotes self-proliferation and stemness.
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.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
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.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/melk/9604740