

Rabbit MELK Polyclonal Antibody | anti-MELK antibody

Anti-MELK Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127211	Rabbit	Human, Mouse, Rat	Flow Cytometry, Functional Assay, Western Blot, Immunocytochemistry, Immunohistochemistry, Immunofluorescence, ELISA

PRODUCT SYNONYMS

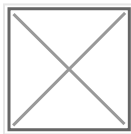
MELK; Polyclonal Antibody; Anti-MELK Antibody Picoband; Ran-specific GTPase-activating protein; homeobox A5; Homeobox protein Hox-A5; Homeobox protein Hox-1C; HOXA5; HOX1C; anti-MELK antibody

PRODUCT SPECIFICATIONS

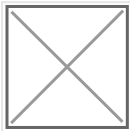
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Ubiquitously expressed. Present at highest levels in the brain, at high levels in the placenta and testis, at intermediate levels in the intestine, ovary, skeletal muscle and thymus and at lower levels in heart, kidney, liver, lung, pancreas, prostate and spleen. In the kidney, it is widely expressed in tubules, but sparsely expressed in the glomerulus (PubMed:24676636). Expression is significantly increased in renal biopsy specimens from idiopathic FSGS (PubMed:24676636). Overexpressed in many tumor types including breast, colorectal, endometrial, hepatic, kidney, lung, ovarian and pancreatic tumors.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-MELK antibody	FCM/FACS (Flow Cytometry), WB (Western Blot), ICC (Immunocytochemistry), IHC (Immunohistochemistry), IF (Immunofluorescence), ELISA
Immunogen	E coli-derived human MELK recombinant protein (Position: H66-Q629).
Subcellular Localization	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	Sequence-specific transcription factor which is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis. Also binds to its own promoter. Binds specifically to the motif 5'-CYNATTA[TG]Y-3'.
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.



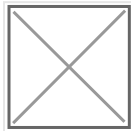
FCM/FACS (Flow Cytometry)
Figure 5. Flow Cytometry analysis of JK cells using anti-MELK antibody (AAA127211). Overlay histogram showing JK cells stained with AAA127211 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-MELK Antibody (AAA127211, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG 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.



IF (Immunofluorescence)
Figure 4. IF analysis of MELK using anti-MELK antibody (AAA127211). MELK was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-MELK Antibody (AAA127211) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.



IHC (Immunohistochemistry)
Figure 3. IHC analysis of MELK using anti-MELK antibody (AAA127211). MELK was detected in a paraffin-embedded section of rat ovary 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-MELK Antibody (AAA127211) 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.



IHC (Immunohistochemistry)
Figure 2. IHC analysis of MELK using anti-MELK antibody (AAA127211). MELK was detected in a paraffin-embedded section of mouse ovary 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-MELK Antibody (AAA127211) 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.



WB (Western Blot)
Figure 1. Western blot analysis of MELK using anti-MELK antibody (AAA127211). 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 293T whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human U87 whole cell lysates, Lane 5: human Jurkat 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-MELK antigen affinity purified polyclonal antibody (#AAA127211) 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 with Tanon 5200 system. A specific band was detected for MELK at approximately 66 kDa. The expected band size for MELK is at 75 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-MELK 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 Categories/Family for anti-MELK antibody	Primary Antibodies; Cancer; Cell Cycle; Cell Cycle Inhibitors; Developmental Families; Domain Families; Epigenetics and Nuclear Signaling; p53 Pathway; Transcription
References	1. Heyer, B. S., Warsowe, J., Solter, D., Knowles, B. B., Ackerman, S. L. New member of the Snf1/AMPK kinase family, Melk, is expressed in the mouse egg and preimplantation embryo. Molec. Reprod. Dev. 47: 148-156, 1997.2. Hirose, T., Horvitz, H. R. An Sp1 transcription factor coordinates caspase-dependent and -independent apoptotic pathways. Nature 500: 354-358, 2013.3. Nagase, T., Seki, N., Ishikawa, K., Tanaka, A., Nomura, N. Prediction of the coding sequences of unidentified human genes. V. The coding sequences of 40 new genes (KIAA0161-KIAA0200) deduced by analysis of cDNA clones from human cell line KG-1. DNA Res. 3: 17-24, 1996.

NCBI AND UNIPROT INFORMATION

NCBI GI #	375493532
NCBI GeneID	9833
NCBI Accession #	NP_001243614.1
NCBI GenBank Nucleotide #	NM_001256685.1
UniProt Accession #	Q14680; Q7L3C3; A6P3A7; A6P3A8; B1AMQ6; B7Z1E6; B7Z6R8; B7Z6Y0; B7Z7Q1; D3DRP8; F5H2R4
Molecular Weight	74,642 Da
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
NCBI Protein Information	maternal embryonic leucine zipper kinase; pEg3 kinase; protein kinase Eg3; protein kinase PK38; tyrosine-protein kinase MELK
UniProt Protein Name	Maternal embryonic leucine zipper kinase
UniProt Gene Name	MELK
UniProt Synonym Gene Names	KIAA0175; hMELK; pEg3 kinase; hPK38
UniProt Entry Name	MELK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/melk-antibody-flow-cytometry-western-blot-immunocytochemistry-immunohistochemistry-immunofluorescence-elisa/127211>