



Rabbit Anti-MELK antibody

SL12201R

Product Name:	MELK
Chinese Name:	蛋白激酶MPK38抗体
Alias:	AI327312; HPK38; 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 PK38; RP23 382O11.1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	75kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from Human MELK/HPK38:101-250/651
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	MELK a new member of the Snf1/AMPK family of kinases, encodes a protein with a kinase catalytic domain and a leucine zipper motif consisting of a periodic repetition of leucine residues at every seventh residue located within the N-terminal catalytic domain. This motif has been observed in myriad DNA-binding proteins and is presumed to be

involved in protein-DNA interactions, and potentially protein-protein interactions. Research predicts that the gene product of MELK plays a role in the signal transduction events in the egg and early embryo. Mouse and human MELK proteins share 95% sequence identity in the kinase domain and northern blot analysis in mouse indicates that MELK expression is restricted to spermatogonia in the testis and to oocytes in the ovary.

Function:

Phosphorylates ZNF622 and may contribute to its redirection to the nucleus. May be involved in the inhibition of spliceosome assembly during mitosis.

Subunit:

Monomer. Interacts with ZNF622 and PPP1R8.

Subcellular Location:

Cytoplasm.

Tissue Specificity:

Expressed in placenta, kidney, thymus, testis, ovary and intestine.

Post-translational modifications:

Autophosphorylated. Thr-478 phosphorylation during mitosis promotes interaction with PPP1R8.

DISEASE:

Note=Defects in MELK are associated with some cancers, such as brain or breast cancers. Expression is dramatically increased in aggressive undifferentiated tumors, correlating with poor patient outcome in breast and brain cancers, suggesting a role in tumor-initiating cells and proliferation via its function in cell proliferation regulation.

Similarity:

Belongs to the protein kinase superfamily.
CAMK Ser/Thr protein kinase family. SNF1 subfamily.
Contains 1 KA1 (kinase-associated) domain.
Contains 1 protein kinase domain.

SWISS:

Q14680

Gene ID:

9833

Database links:

[Entrez Gene: 9833](#) Human

[Entrez Gene: 17279](#) Mouse

[Entrez Gene: 520088](#) Cow

[Omim: 607025](#) Human

[SwissProt: Q14680](#) Human

[SwissProt: Q61846](#) Mouse

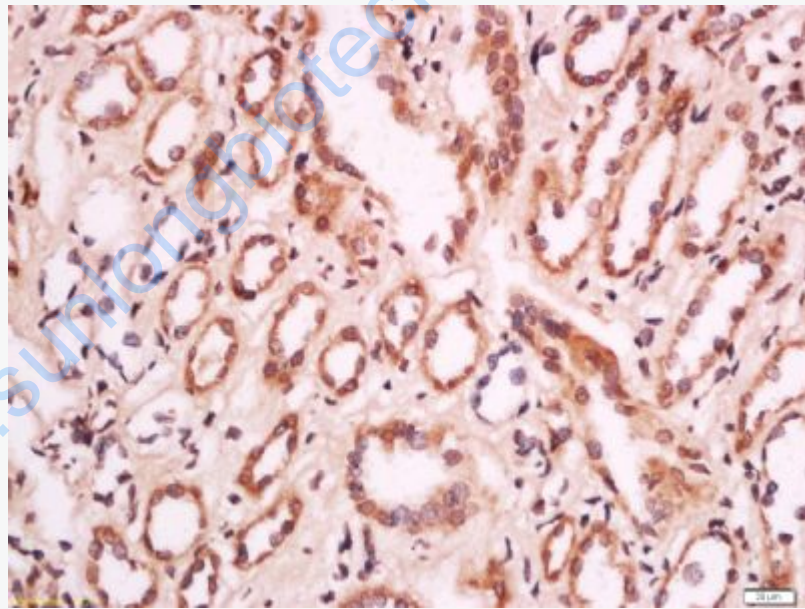
[Unigene: 184339](#) Human

[Unigene: 268668](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-MELK Polyclonal Antibody, Unconjugated(SL12201R) 1:200,
overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and
DAB(C-0010) staining

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