Anti-MELK antibody

Description	Rabbit polyclonal to MELK.

Model	STJ94095
Host	Rabbit
Reactivity	Human
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human MELK
Immunogen Region	400-480 aa, Internal
Gene ID	9833
Gene Symbol	MELK
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000
Specificity	MELK Polyclonal Antibody detects endogenous levels of MELK protein.
Tissue Specificity	Expressed in placenta, kidney, thymus, testis, ovary and intestine.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Maternal embryonic leucine zipper kinase hMELK Protein kinase Eg3 pEg3 kinase Protein kinase PK38 hPK38 Tyrosine-protein kinase MELK
Molecular Weight	75 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:16870OMIM:607025
Alternative Names	Maternal embryonic leucine zipper kinase hMELK Protein kinase Eg3 pEg3 kinase Protein kinase PK38 hPK38 Tyrosine-protein kinase MELK
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.
Sequence and Domain Family	The KA1 domain mediates binding to phospholipids and targeting to membranes.
Cellular Localization	Cell membrane
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).