

**KD-Validated Anti-MELK Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1341****Specification****KD-Validated Anti-MELK Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">Q14680</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 75 kDa; observed, 70 kDa kDa
Gene Name	MELK
Aliases	MELK; Maternal Embryonic Leucine Zipper Kinase; KIAA0175; Tyrosine-Protein Kinase MELK; Protein Kinase PK38; Protein Kinase Eg3; PEg3 Kinase; EC 2.7.11.1; HPK38; EC 2.7.10.2; EC 2.7.11; HMELK
Immunogen	A synthesized peptide derived from human MELK

**KD-Validated Anti-MELK Rabbit Monoclonal Antibody - Additional Information**

Gene ID	9833
<b>Other Names</b>	
Maternal embryonic leucine zipper kinase, hMELK, 2.7.11.1, Protein kinase Eg3, pEg3 kinase, Protein kinase PK38, hPK38, Tyrosine-protein kinase MELK, 2.7.10.2, MELK, KIAA0175	

**KD-Validated Anti-MELK Rabbit Monoclonal Antibody - Protein Information****Name** MELK**Synonyms** KIAA0175**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.

**Cellular Location**

Cell membrane; Peripheral membrane protein

#### Tissue Location

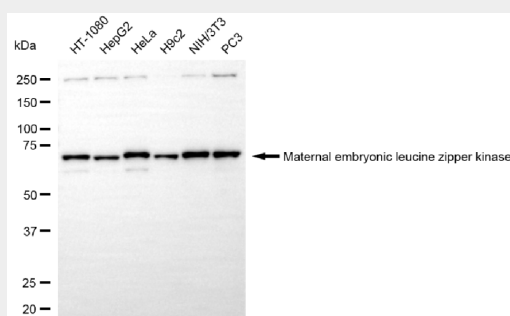
Expressed in placenta, kidney, thymus, testis, ovary and intestine.

### KD-Validated Anti-MELK Rabbit Monoclonal Antibody - Protocols

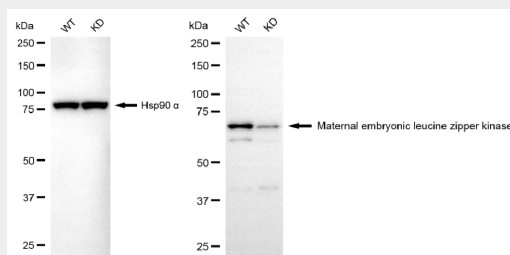
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

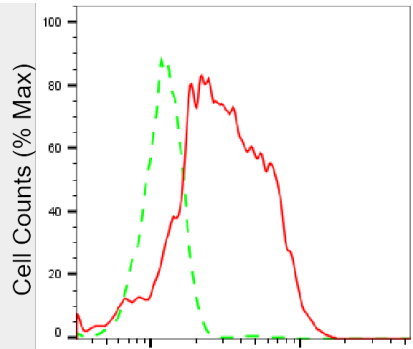
### KD-Validated Anti-MELK Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-maternal embryonic leucine zipper kinase antibody (Cat#AGI1341). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-maternal embryonic leucine zipper kinase antibody (Cat#AGI1341, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



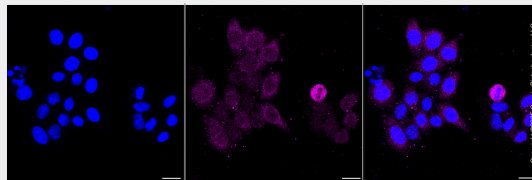
Western blotting analysis using anti-maternal embryonic leucine zipper kinase antibody (Cat#AGI1341). Maternal embryonic leucine zipper kinase expression in wild-type (WT) and maternal embryonic leucine zipper kinase (MELK) knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-maternal embryonic leucine zipper kinase antibody (Cat#AGI1341, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Maternal embryonic leucine zipper kinase-  
Alexa Fluor® 647

Flow cytometric analysis of Maternal embryonic leucine zipper kinase expression in HepG2 cells using anti-Maternal embryonic leucine zipper kinase antibody (Cat#AGI1341, 1:2,000). Green, isotype control; red, Maternal embryonic leucine zipper kinase.



Immunocytochemical staining of HepG2 cells with anti-Maternal embryonic leucine zipper kinase antibody (Cat#AGI1341, 1:1,000). Nuclei were stained blue with DAPI; Maternal embryonic leucine zipper kinase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.