*FOR RESEARCH USE ONLY!*

11/18

# Anti-MELK Antibody

**CATALOG NO.: A1686-100**

**BACKGROUND DESCRIPTION:** 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.

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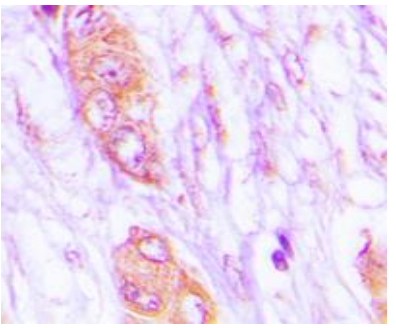
| **ALTERNATE NAMES:** | KIAA0175; Maternal embryonic leucine zipper kinase; hMELK; Protein kinase Eg3; pEg3 kinase; Protein kinase PK38; hPK38; Tyrosine-protein kinase MELK. |
| **AMOUNT:** | 100 µl. |
| **HOST/ISOTYPE:** | Rabbit / IgG. |
| **IMMUNOGEN:** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human MELK. |
| **PURIFICATION:** | Affinity purified. |
| **FORM:** | Liquid. |
| **FORMULATION:** | In 0.42% Potassium phosphate; 0.87% Sodium chloride; pH 7.3; 30% glycerol; and 0.01% sodium azide. |
| **SPECIES REACTIVITY:** | Rat.<br>Monkey.<br>Mouse.<br>Human. |
| **STORAGE CONDITIONS:** | Store at -20°C; For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **APPLICATIONS AND USAGE:** | Immunohistochemistry (IHC).<br>Immunofluorescence (IF).<br>Immunocytochemistry (ICC).<br>Western Blotting. |



IHC analysis of MELK staining in human lung cancer tissue.

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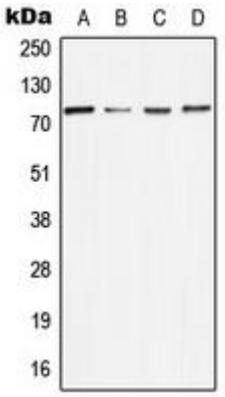
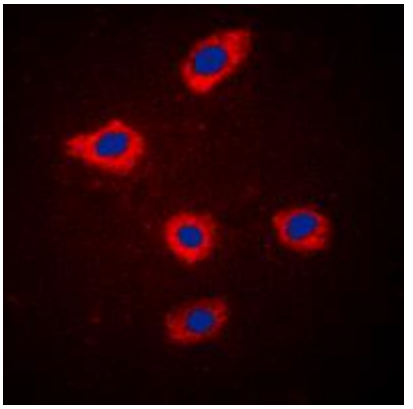



Western blot analysis of MELK expression in MCF7 (A); NIH3T3 (B); mouse liver (C); rat liver (D) whole cell lysates.



IFC analysis of MELK staining in MCF7 cells..

**RELATED PRODUCTS:**

Anti-LIN28B Antibody (Cat# A1685).
Anti-KLF4 Antibody (Cat# A1684).
Anti-IRF-6 Antibody (Cat# A1682).
Anti-JMJD6 Antibody (Cat# A1683).

***FOR RESEARCH USE ONLY! Not to be used on humans.***