

**(Mouse) Melk Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21213b**

### Specification

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#### (Mouse) Melk Antibody (C-term) - Product Information

Application	WB, FC,E
Primary Accession	<a href="#">O61846</a>
Reactivity	Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	72729

#### (Mouse) Melk Antibody (C-term) - Additional Information

**Gene ID** 17279

#### Other Names

Maternal embryonic leucine zipper kinase, Protein kinase PK38, mPK38, Tyrosine-protein kinase MELK, Melk, Kiaa0175, Pk38

#### Target/Specificity

This mouse Melk antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 434-468 amino acids from the C-terminal region of mouse Melk.

#### Dilution

WB~~1:2000

FC~~1:25

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

(Mouse) Melk Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### (Mouse) Melk Antibody (C-term) - Protein Information

**Name** Melk

**Synonyms** Kiaa0175, Pk38

**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. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits 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**

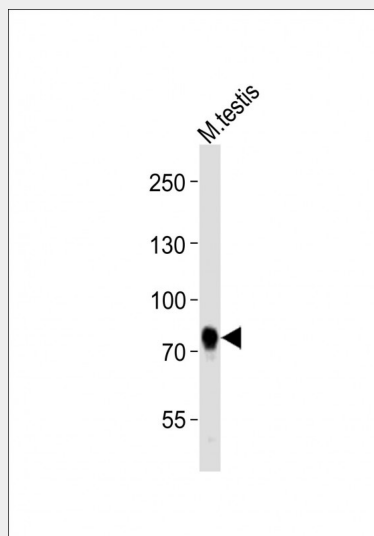
Expressed in testis, ovary, thymus, spleen and T- cell. Expressed by neural progenitors: highly enriched in cultures containing multipotent progenitors.

#### **(Mouse) Melk Antibody (C-term) - Protocols**

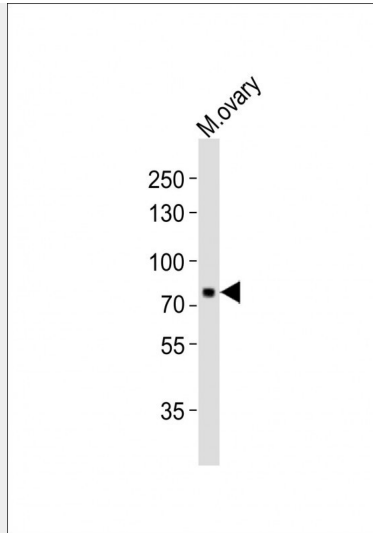
Provided below are standard protocols that you may find useful for product applications.

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

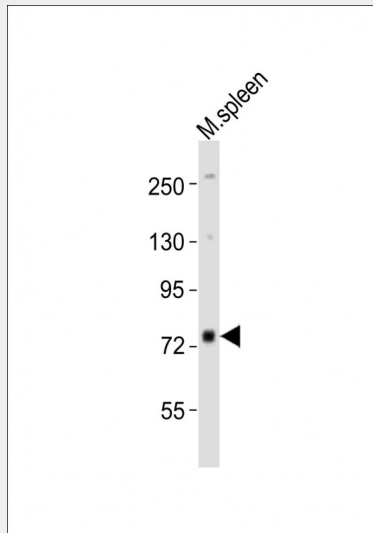
#### **(Mouse) Melk Antibody (C-term) - Images**



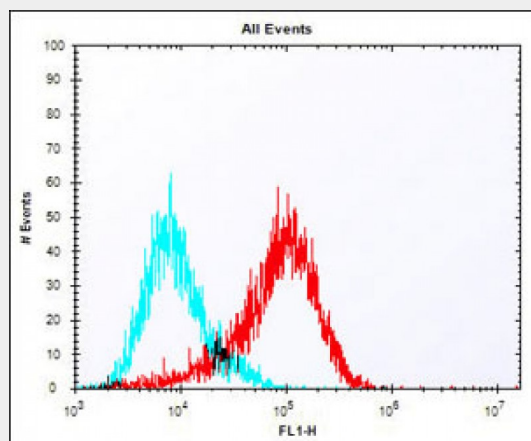
Anti-Melk Antibody (C-term) at 1:1000 dilution + mouse testis lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 73 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Anti-Melk Antibody (C-term) at 1:1000 dilution + mouse ovary lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 73 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-Melk Antibody (C-term) at 1:2000 dilution + mouse spleen lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 73 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Overlay histogram showing MCF-7 cells stained with AP21213b (red line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP21213b, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.

#### **(Mouse) Melk Antibody (C-term) - Background**

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. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits 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.

#### **(Mouse) Melk Antibody (C-term) - References**

- Gil M., et al. *Gene* 195:295-301(1997).
- Heyer B.S., et al. *Mol. Reprod. Dev.* 47:148-156(1997).
- Carninci P., et al. *Science* 309:1559-1563(2005).
- Okazaki N., et al. *DNA Res.* 10:167-180(2003).
- Church D.M., et al. *PLoS Biol.* 7:E1000112-E1000112(2009).