Human MELK Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4820

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MELK in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human MELK Gln341-Ala470 Accession # Q14680
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

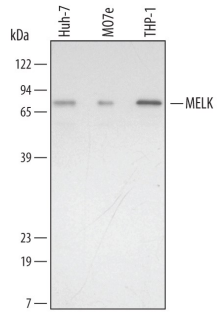
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

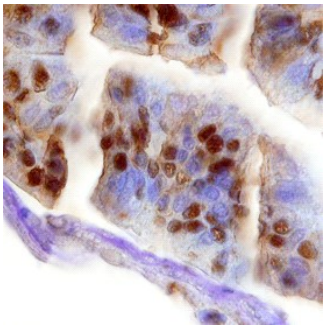
DATA

Western Blot



Detection of Human MELK by Western Blot. Western blot shows lysates of Huh-7 human hepatoma cell line, MO7e human megakaryocytic leukemic cell line, and THP-1 human acute monocytic leukemia cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human MELK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4820) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for MELK at approximately 74 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



MELK in Human Breast Cancer Tissue. MELK was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Sheep Anti-Human MELK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4820) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membranes of glandular epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MELK (maternal embryonic leucine zipper kinase; also HPK38) is a member of the Snf1/AMPK family of serine/threonine kinases. It is expressed in blood mononuclear cells, stem cells and other tissues, and functions in cell cycle progression and pre-mRNA splicing. Human MELK is 651 amino acids (aa) in length and contains one protein kinase domain (aa 11-263) and a kinase-associated (KA) 1 domain (aa 602-651). MELK is activated upon phosphorylation of T167 and S171. There are multiple alternative splice variants. Two show the same 16 aa substitution for the N-terminal 87 and 48 aa, respectively; a third shows an alternate start site at M440, and a fourth shows complex splicing over aa 1-392. Over aa 341-470, human MELK shares 56% aa identity with mouse MELK.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956