Human Cyclin A1 Antibody

Monoclonal Mouse IgG_1 Clone # 722407

Catalog Number: MAB7046

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cyclin A1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Cyclin A2, B1, B2, C, D1, D2, D3, E1, E2, or recombinant mouse Cyclin A1 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 722407
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Cyclin A1 Lys51-Arg220 Accession # P78396
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.

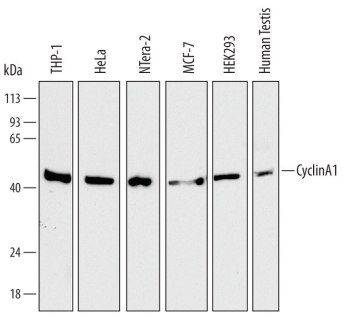
APPLICATIONS

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	8-25 µg/mL	See Below

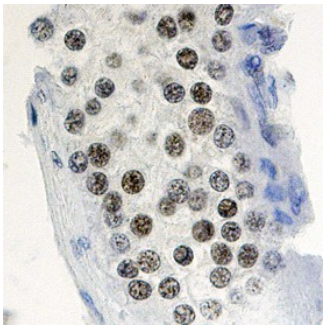
DATA

Western Blot



Detection of Human Cyclin A1 by Western Blot. Western blot shows lysates of THP-1 human acute monocytic leukemia cell line, HeLa human cervical epithelial carcinoma cell line, NTera-2 human testicular embryonic carcinoma cell line, MCF-7 human breast cancer cell line, HEK293 human embryonic kidney cell line, and human testis tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Cyclin A1 Monoclonal Antibody (Catalog # MAB7046) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Cyclin A1 at approximately 52 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Cyclin A1 in Human Testis. Cyclin A1 was detected in immersion fixed paraffin-embedded sections of human testis using Mouse Anti-Human Cyclin A1 Monoclonal Antibody (Catalog # MAB7046) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei of spermatocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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

Cyclin A1, also known as CCNA1, is a 64 kDa protein that associates with the kinase Cdk2. This complex phosphorylates multiple substrates involved in regulation of cell cycle progression, apoptosis, double strand DNA break repair, and mRNA splicing. Cyclin A1 activity promotes G2/M phase transition in spermatocyte meiosis and G1/S transition in somatic cells. Cyclin A1 is upregulated in myeloid leukemia, testicular germ cell tumors, and several carcinomas. It contains two cyclin box folds (aa 243-318 and 340-427). Over aa 51-220, human Cyclin A1 shares approximately 75% aa identity with mouse and rat Cyclin A1.

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