

Mouse Anti-Human Cyclin A1 Monoclonal Antibody

Cat. No. CAB11491MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse monoclonal antibody to human cyclin A1.
Species	Human
Source	Mouse
Antigen Description	Cyclin-A1, also known as CCNA1, is a nucleus protein which belongs to the cyclin family and Cyclin AB subfamily. The expression of Cyclin-A1 (CCNA1) is increased in early G1 phase and reaches highest levels during the S and G2/M phases. The mammalian A-type cyclin family consists of two members, Cyclin-A1 (CCNA1) and Cyclin-A2 (CCNA2). CCNA2 promotes both G1/S and G2/M transitions, and targeted deletion of Ccna2 in mouse is embryonic lethal Cyclin-A1 (CCNA1) is expressed in mice exclusively in the germ cell lineage and is expressed in humans at highest levels in the testis and certain myeloid leukaemia cells. Cyclin-A1 (CCNA1) is essential for spermatocyte passage into the first meiotic division in male mice, a function that cannot be complemented by the concurrently expressed B-type cyclins. Cyclin-A1 (CCNA1) may be involved in the control of the cell cycle at the G1/S (start) and G2/M (mitosis) transitions. Cyclin-A1 (CCNA1) may function in the control of the germline meiotic cell cycle and additionally in the control of mitotic cell cycle in some somatic cells. Cyclin-A1 (CCNA1) interacts with the CDK2 and the CDC2 protein kinases to form a serine/threonine kinase holoenzyme complex. The cyclin subunit imparts substrate specificity to the complex.
Specificity	Human CCNA1 / Cyclin-A1. No cross-reactivity with Baculovirus lysate in ELISA.

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Immunogen	Recombinant human CCNA1 protein
Isotype	Mouse IgG2a
Clone	4G7C3D3
Purification	Protein A affinity chromatography
Applications	Western Blot; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human CCNA1 in WB. Using a DAB detection system, the detection limit for human CCNA1 is approximately 8 ng/lane under non-reducing conditions and 4 ng/lane under reducing conditions. Direct ELISA: This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect human CCNA1. The detection limit for human CCNA1 is 0.0195 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, insect cell-derived, recombinant human CCNA1. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 °C to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	CCNA1 cyclin A1 [Homo sapiens]
Official Symbol	CCNA1
Synonyms	CCNA1; cyclin A1; cyclin-A1;
Gene ID	8900
mRNA Refseq	NM_001111045
Protein Refseq	NP_001104515
MIM	604036
UniProt ID	P78396
Chromosome Location	13q12.3-q13
Pathway	APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; C-MYB transcription factor network, organism-specific biosystem; Cell Cycle, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; Cell cycle, organism-specific biosystem;
Function	protein binding; protein kinase binding;

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