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CCNA2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1984a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P20248
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6B4D11
Calculated MW	48551
Description	The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance through the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. In contrast to cyclin A1, which is present only in germ cells, this cyclin is expressed in all tissues tested. This cyclin binds and activates CDC2 or CDK2 kinases, and thus promotes both cell cycle G1/S and G2/M transitions.
Immunogen	Purified recombinant fragment of human CCNA2 (AA: 105-233) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	890
Other Names	Cyclin-A2, Cyclin-A, CCNA2, CCN1, CCNA
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CCNA2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CCNA2 (HGNC:1578)
Function	Essential for the control of the cell cycle at G1/S and G2/M transition (PubMed:1312467). Functions through the formation of specific

	serine/threonine protein kinase holoenzyme complexes with the cyclin-dependent protein kinases CDK1 or CDK2. The cyclin subunit confers the substrate specificity of these complexes and differentially interacts with and activates CDK1 and CDK2 throughout the cell cycle (PubMed:41100585).
Cellular Location	Nucleus. Cytoplasm. Note=Exclusively nuclear during interphase (PubMed:1312467). Detected in the nucleus and the cytoplasm at prophase (PubMed:1312467). Cytoplasmic when associated with SCAPER (PubMed:17698606).

Background

This gene is a member of the paired box (PAX) family of transcription factors. Members of the PAX family typically contain a paired box domain and a paired-type homeodomain. These genes play critical roles during fetal development. Mutations in paired box gene 3 are associated with Waardenburg syndrome, craniofacial-deafness-hand syndrome, and alveolar rhabdomyosarcoma. The translocation t(2;13)(q35;q14), which represents a fusion between PAX3 and the forkhead gene, is a frequent finding in alveolar rhabdomyosarcoma. Alternative splicing results in transcripts encoding isoforms with different C-termini. ; ;

References

1. Cancer. 2011 Sep 1;117(17):4080-91.2. J Phys Chem B. 2008 Jul 17;112(28):8346-53.

Images

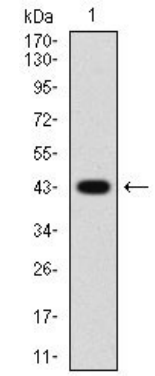


Figure 1: Western blot analysis using CCNA2 mAb against human CCNA2 (AA: 105-233) recombinant protein. (Expected MW is 40.8 kDa)

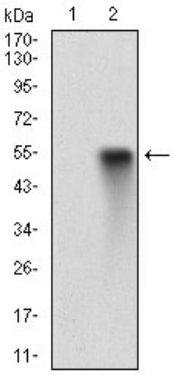
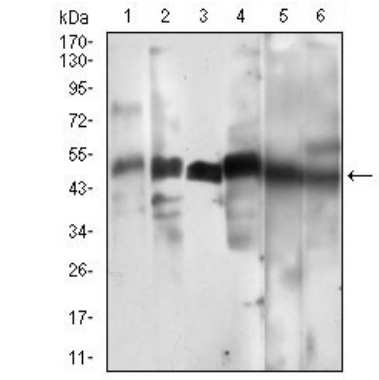


Figure 2: Western blot analysis using CCNA2 mAb against HEK293 (1) and CCNA2 (AA: 105-233)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Western blot analysis using CCNA2 mouse mAb against Hela (1), HEK293 (2), Jurkat (3), K562 (4), SK-Br-3 (5), NIH/3T3 (6) cell lysate.



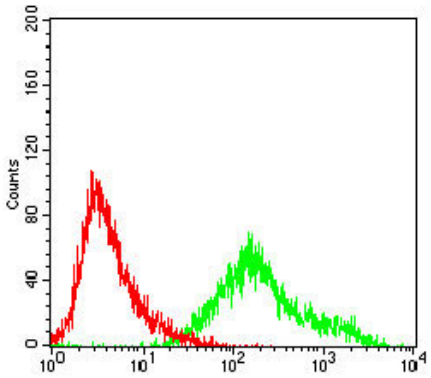


Figure 4: Flow cytometric analysis of A431 cells using CCNA2 mouse mAb (green) and negative control (red).

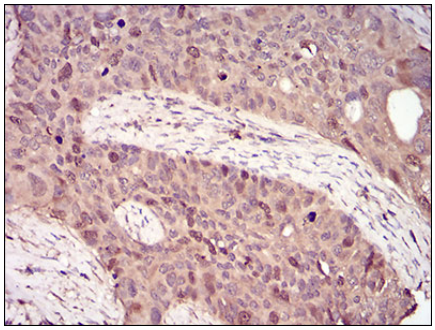


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CCNA2 mouse mAb with DAB staining.

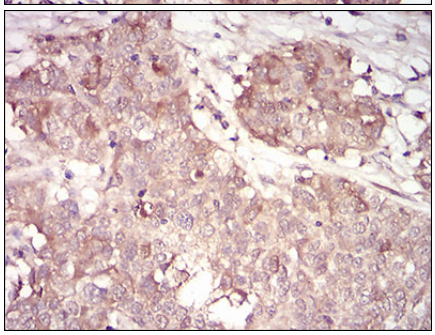


Figure 6: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using CCNA2 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.