10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CCNA2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1984a

Specification

CCNA2 Antibody - Product Information

Application	**WB, IHC, FC, E**
Primary Accession	P20248
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**48.6kDa KDa**

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.

CCNA2 Antibody - 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.

CCNA2 Antibody - Protein Information

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Name CCNA2 (HGNC:1578)

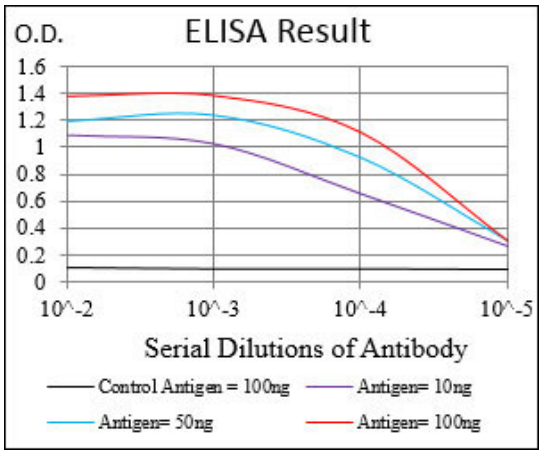
Function
Cyclin which controls both the G1/S and the G2/M transition phases of the cell cycle. Functions through the formation of specific serine/threonine protein kinase holoenzyme complexes with the cyclin- dependent protein kinases CDK1 or CDK2. The cyclin subunit confers the substrate specificity of these complexes and differentially interacts with and activates CDK1 and CDK2 throughout the cell cycle.

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).

CCNA2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

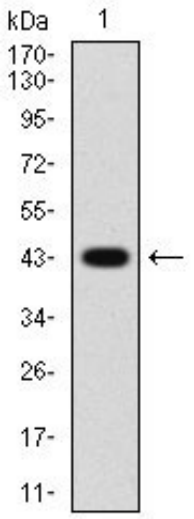


Figure 1: Western blot analysis using CCNA2 mAb against human CCNA2 (AA: 105-233) recombinant protein. (Expected MW is 40.8 kDa)

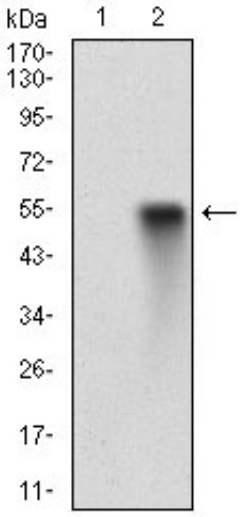


Figure 2: Western blot analysis using CCNA2 mAb against HEK293 (1) and CCNA2 (AA: 105-233)-hIgGFc transfected HEK293 (2) cell lysate.

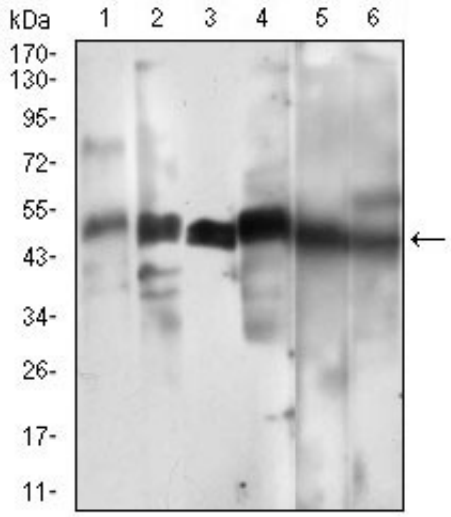


Figure 3: Western blot analysis using CCNA2 mouse mAb against Hela (1), HEK293 (2), Jurkat (3), K562 (4), SK-Br-3 (5), NIH/3T3 (6) cell lysate.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

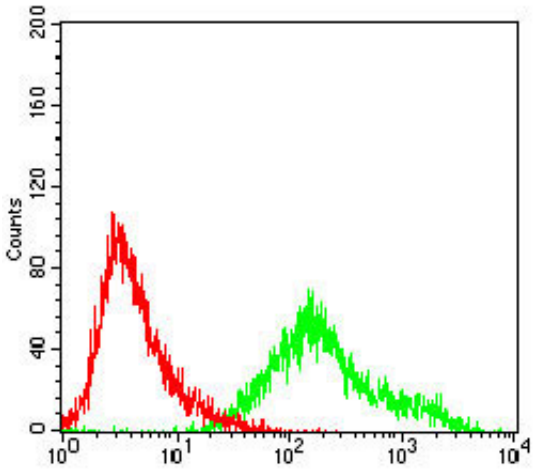


Figure 4: Flow cytometric analysis of A431 cells using CCNA2 mouse mAb (green) and negative control (red).

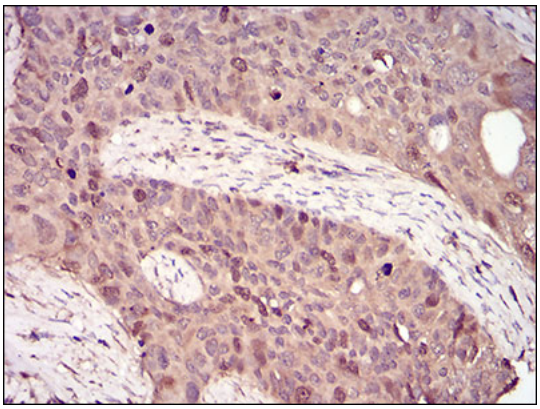


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CCNA2 mouse mAb with DAB staining.

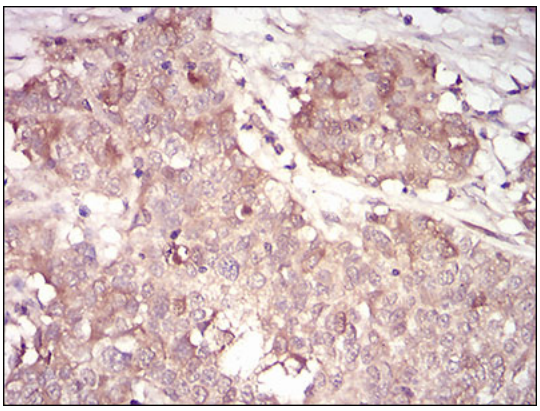


Figure 6: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using CCNA2 mouse mAb with DAB staining.

CCNA2 Antibody - 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. ; ;

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CCNA2 Antibody - References

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