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

Cyclin A (CCNA2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7292a

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P20248
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14617
Calculated MW	48551
Antigen Region	51-84

Additional Information

Gene ID	890
Other Names	Cyclin-A2, Cyclin-A, CCNA2, CCN1, CCNA
Target/Specificity	This Cyclin A (CCNA2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 51-84 amino acids from the N-terminal region of human Cyclin A (CCNA2).
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Cyclin A (CCNA2) Antibody (N-term) 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).

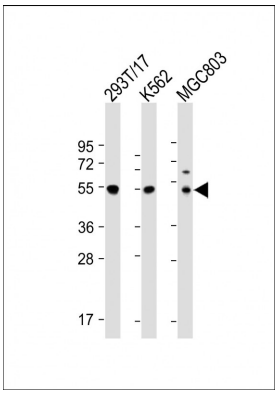
Background

CCNA2 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.

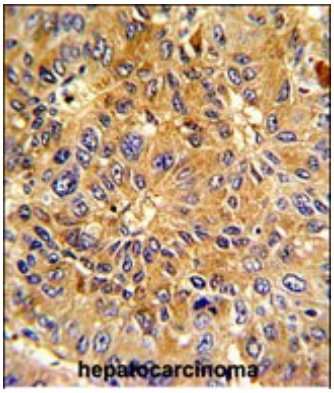
References

Henglein B.,Proc. Natl. Acad. Sci. U.S.A. 91:5490-5494(1994)
Wang J.,Nature 343:555-557(1990)
Tsang,W.Y.,J. Cell Biol. 178 (4), 621-633 (2007)

Images

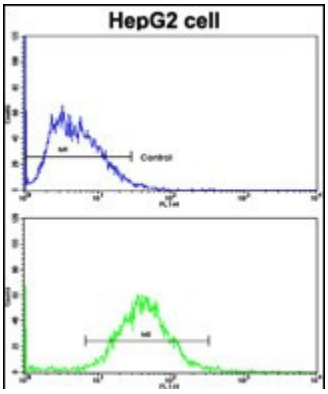


All lanes : Anti-CCNA2 Antibody (N-term) at 1:2000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: MGC803 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human hepatocarcinoma with Cyclin A (CCNA2) Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of HepG2 cells using Cyclin A (CCNA2) Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Construction of a circular RNA-microRNA-messenger RNA regulatory network of hsa_circ_0043256 in lung cancer by integrated analysis
- HNF4α is a therapeutic target that links AMPK to WNT signalling in early-stage gastric cancer.

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