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

Anti-Cyclin A2 Picoband Antibody

Catalog # ABO12114

Product Information

Application	WB, IHC-P
Primary Accession	P20248
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Cyclin-A2(CCNA2) detection. Tested with WB, IHC-P in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	890
Other Names	Cyclin-A2, Cyclin-A, CCNA2, CCN1, CCNA
Calculated MW	48551
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Nucleus . Cytoplasm . Cytoplasmic when associated with SCAPER.
Source	Eukaryota
Protein Name	Cyclin-A2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human Cyclin A2 recombinant protein (Position: A10-K168). Human Cyclin A2 shares 74.5% amino acid (aa) sequence identity with mouse Cyclin A2.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the cyclin family. Cyclin AB subfamily.

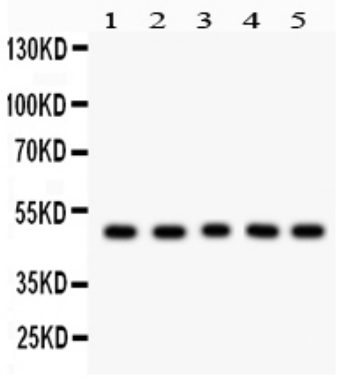
Protein Information

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).

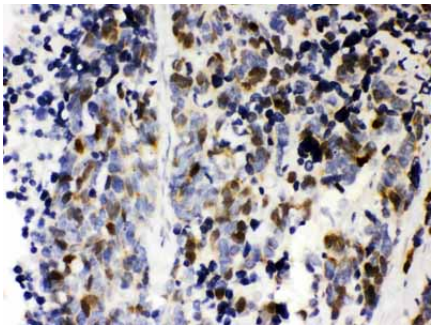
Background

Cyclin A2, known as CCNA2, is mapped to 4q27. 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. And Cyclin A2 is synthesized at the onset of S phase and localizes to the nucleus, where the cyclin A2-CDK2 complex is implicated in the initiation and progression of DNA synthesis. Phosphorylation of CDC6 and MCM4 by the cyclin A2-CDK2 complex prevents re-replication of DNA during the cell cycle.

Images



Anti- Cyclin A2 Picoband antibody, ABO12114, Western blottingAll lanes: Anti Cyclin A2 (ABO12114) at 0.5ug/mlLane 1: Rat Skeletal Muscle Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: COLO320 Whole Cell Lysate at 40ugLane 4: HEPG2 Whole Cell Lysate at 40ugLane 5: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 49KDObserved bind size: 49KD



Anti- Cyclin A2 Picoband antibody, ABO12114, IHC(P)IHC(P): Human Lung Cancer Tissue

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