

Basic Information

Product Name	Anti-Cyclin A2/CCNA2 Antibody	
Gene Name	CCNA2	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
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.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	55 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

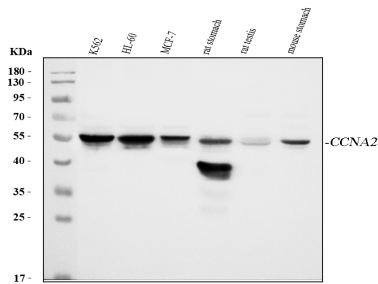
Background Information

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.

Reference

Anti-Cyclin A2/CCNA2 Antibody 被引用在6文献中。

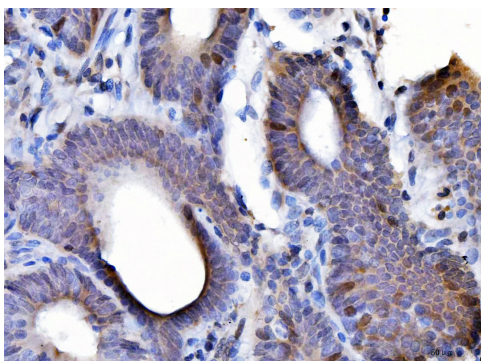
Selected Validation Data



Western blot analysis of Cyclin A2/CCNA2 using anti-Cyclin A2/CCNA2 antibody (PB9424). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

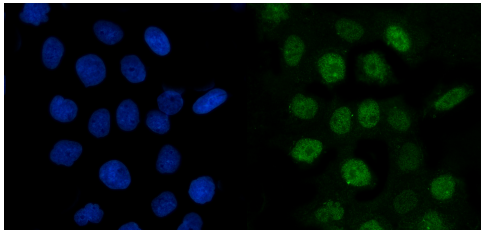
Lane 1: K562 whole cell lysates,
Lane 2: HL-60 whole cell lysates,
Lane 3: MCF-7 whole cell lysates,
Lane 4: rat stomach tissue lysates,
Lane 5: rat testis tissue lysates,
Lane 6: mouse stomach tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Cyclin A2/CCNA2 antigen affinity purified polyclonal antibody (PB9424) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Cyclin A2/CCNA2 at approximately 55 kDa. The expected band size for Cyclin A2/CCNA2 is at 49 kDa.



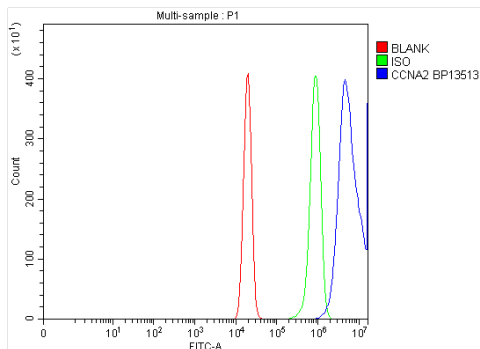
IHC analysis of Cyclin A2/CCNA2 using anti-Cyclin A2/CCNA2 antibody (PB9424).

Cyclin A2/CCNA2 was detected in a paraffin-embedded section of human Colorectal adenocarcinoma tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Cyclin A2/CCNA2 Antibody (PB9424) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of Cyclin A2/CCNA2 using anti-Cyclin A2/CCNA2 antibody (PB9424).

Cyclin A2/CCNA2 was detected in an immunocytochemical section of A431 cells. The section was incubated with rabbit anti-Cyclin A2/CCNA2 Antibody (PB9424) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of U2OS cells using anti-Cyclin A2/CCNA2 antibody (PB9424).

Overlay histogram showing U2OS cells stained with PB9424 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cyclin A2/CCNA2 Antibody (PB9424) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.