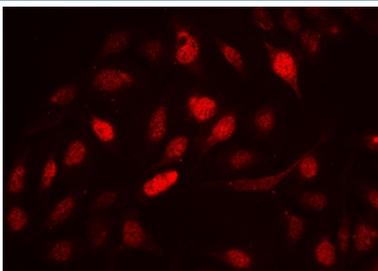


Cyclin A2 Antibody Rabbit Polyclonal (R31999)

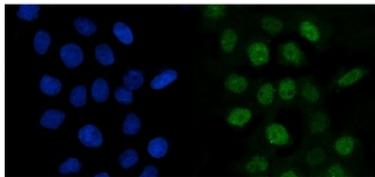
Catalog No.	Formulation	Size
R31999	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

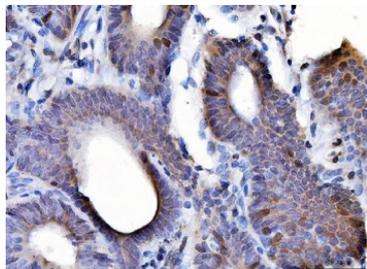
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P20248
Localization	Cytoplasmic, nuclear
Applications	Western Blot : 0.1-0.5ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Cyclin A2 antibody is available for research use only.



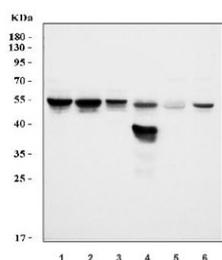
Immunofluorescence analysis of Cyclin A2 antibody in FFPE human U-2 OS cells. Cells demonstrate strong nuclear fluorescence signal consistent with Cyclin A2 localization in proliferating cells, with minimal cytoplasmic staining. The distribution pattern aligns with the known role of Cyclin A2 as a nuclear cell cycle regulator expressed during S phase and G2 phase. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 minutes prior to staining.



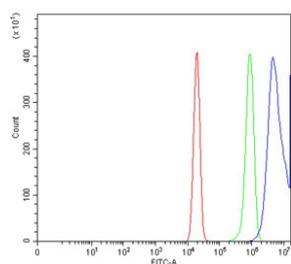
Immunofluorescent staining of FFPE human A431 cells with Cyclin A2 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



IHC staining of FFPE human colorectal adenocarcinoma tissue with Cyclin A2 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human K562, 2) human HL60, 3) human MCF7, 4) rat stomach, 5) rat testis and 6) mouse stomach tissue lysate with Cyclin A2 antibody. Expected molecular weight ~49 kDa.



Flow cytometry testing of human U-2 OS cells with Cyclin A2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Cyclin A2 antibody.

Description

Cyclin A2 antibody is known to bind Cyclin A2 protein. 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.

Application Notes

Optimal dilution of the Cyclin A2 antibody should be determined by the researcher.

Immunogen

Amino acids 10-168 of human Cyclin A2 were used as the immunogen for the Cyclin A2 antibody.

Storage

After reconstitution, the Cyclin A2 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.