

## Cyclin A1+ Cyclin A2 Rabbit mAb

Catalog No: #49194

Package Size: #49194-1 50ul #49194-2 100ul

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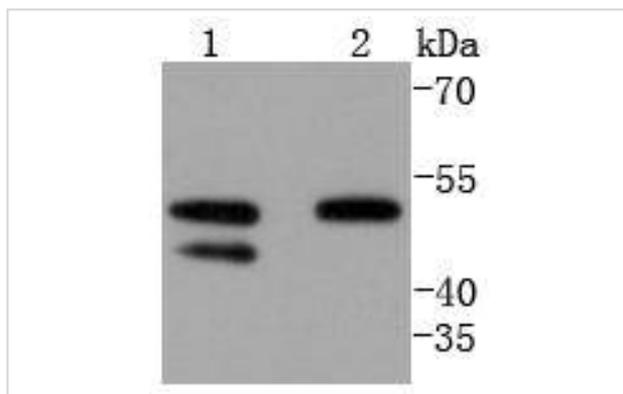
## Description

|                       |   |
|-----------------------|---|
| Product Name          | Cyclin A1+ Cyclin A2 Rabbit mAb   |
| Host Species          | Recombinant Rabbit  |
| Clonality             | Monoclonal antibody   |
| Clone No.             | SD2053  |
| Purification          | ProA affinity purified  |
| Applications          | WB, IHC, IP   |
| Species Reactivity    | Hu  |
| Immunogen Description | recombinant protein   |
| Other Names           | CCN1 antibody CCNA antibody CCNA1 antibody CCNA2 antibody CT146 antibody Cyclin-A antibody<br>Cyclin-A1 antibody Cyclin-A2 antibody |
| Accession No.         | Swiss-Prot#:P20248  |
| Calculated MW         | 52/49 kDa   |
| Formulation           | 1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.  |
| Storage               | Store at -20°C  |

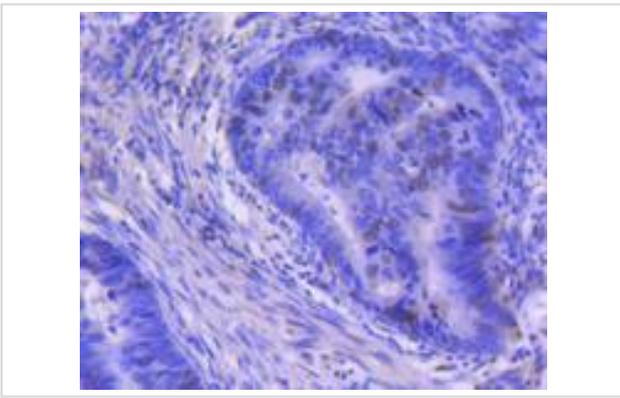
## Application Details

WB: 1:1,000-1:2,000 IHC: 1:50-1:200

## Images



Western blot analysis of Cyclin A1/A2 on different lysates using anti-Cyclin A1/A2 antibody at 1/1,000 dilution. Positive control: Lane 1: Hela Lane 2: HepG2



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-Cyclin A1/A2 antibody. Counter stained with hematoxylin.

## Background

The critical role that the family of regulatory proteins known as cyclins play in eukaryotic cell cycle regulation is well established. Cyclin A accumulates prior to cyclin B in the cell cycle, appears to be involved in control of S phase and has been shown to associate with cyclin-dependent kinase-2 (Cdk2). In addition, cyclin A has been implicated in cell transformation and is found in complexes with E1A, transcription factors DRTF1 and E2F, and retinoblastoma protein p110. A second form of cyclin A, named cyclin A1 because of its high sequence homology to *Xenopus* cyclin A1, is most highly expressed in germ cells. It has been proposed that cyclin A1 can associate with Cdk2, p39 and Cdc2 p34. Cyclin A2 is a member of the highly conserved cyclin family. Cyclins regulate CDK kinases and different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. Cyclin A2 is expressed in all tissues tested, in contrast to cyclin A1, which is present only in germ cells. The Cyclin A2 protein binds and activates CDC2 or CDK2 kinases, and thus promotes both cell cycle G1/S and G2/M transitions. Cyclin A2 also functions in the transition to DNA replication and synthesis phases of the cell cycle and is quickly destroyed as the cell moves into mitosis.

## References

1. Pakula A et al. Altered expression of cyclin A 1 in muscle of patients with facioscapulohumeral muscle dystrophy (FSHD-1). *PLoS One* 8:e73573 (2013).
2. Sharon E et al. Human herpesvirus 6 (HHV-6) alters E2F1/Rb pathways and utilizes the E2F1 transcription factor to express viral genes. *Proc Natl Acad Sci U S A* 111:451-6 (2014).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.