

# Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM619]
Catalog # AH12577

### **Specification**

## Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Product Information

Application IHC, IF, FC
Primary Accession P14635
Other Accession 891, 23960
Reactivity Human, Mouse
Host Mouse
Clonality Monoclonal

Isotype Mouse / IgG1, kappa

Calculated MW 55-62kDa KDa

### Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Additional Information

#### Gene ID 891

#### **Other Names**

G2/mitotic-specific cyclin-B1, CCNB1, CCNB

## **Application Note**

<span class ="dilution\_IHC">IHC~~1:100~500</span><br \> <span class
="dilution IF">IF~~1:50~200</span><br \> <span class = "dilution FC">FC~~1:10~50</span>

### **Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

#### **Precautions**

Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

# Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Protein Information

### Name CCNB1

## **Synonyms** CCNB

### **Function**

Essential for the control of the cell cycle at the G2/M (mitosis) transition.

#### **Cellular Location**

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome

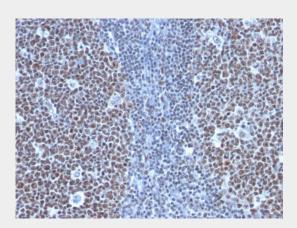
# Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Protocols



Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Tonsil stained with Cyclin B1 Monoclonal Antibody (SPM619)

### Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - Background

It recognizes a protein of 55-62kDa, identified as cyclin B1. In mammals, cyclin B associates with inactive p34cdc2, which facilitates phosphorylation of p34cdc2 at aa 14Thr and 15Tyr. This maintains the inactive state until the end of G2-phase. The inactive cyclin B-p34cdc2 complex continues to accumulate in the cytoplasm until the completion of DNA synthesis, when Cdc25, a specific protein phosphatase, dephosphorylates aa 14Thr and 15Tyr of p34cdc2 rendering the complex active at the G2/M boundary. This mitotic kinase complex remains active until the metaphase/anaphase transition when cyclin B is degraded. This degradation process is ubiquitin-dependent and is necessary for the cell to exit mitosis. So, cyclin B-p34cdc2 plays a critical role in G2 to M transition.

# Cyclin B1 (G2- & M-phase Cyclin) Antibody - With BSA and Azide - References

Galaktionov, K. and Beach D. 1991. Specific activation of Cdc25 tyrosine phosphatases by B type cyclins: Evidence for multiple roles of mitotic cyclins. Cell 67: 1181-1194.