

## Cyclin B1 polyclonal antibody

Catalog: BS6874

Host: Rabbit

Reactivity: Human, Mouse, Rat

### Background:

Cyclins are a family of proteins that activate specific cyclin-dependent kinases required for progression through the cell cycle. The entry of all eukaryotic cells into mitosis is regulated by activation of cdc2/cdk1 at the G2/M transition. This activation is a multi-step process that begins with the binding of the regulatory subunit, cyclin B1, to cdc2/cdk1 to form the mitosis-promoting factor (MPF). MPF remains in the inactive state until phosphorylation of cdc2/cdk1 at Thr161 by cdk activating kinase (CAK) and dephosphorylation of cdc2/cdk1 at Thr14/Tyr15 by cdc25C. Four cyclin B1 phosphorylation sites (Ser126, 128, 133, and 147) are located in the cytoplasmic retention signal (CRS) domain and are thought to regulate the translocation of cyclin B1 to the nucleus at the G2/M checkpoint, promoting nuclear accumulation and initiation of mitosis. While MPF itself can phosphorylate Ser126 and Ser128, polo-like kinase 1 (PLK1) phosphorylates cyclin B1 preferentially at Ser133 and possibly at Ser147. At the end of mitosis, cyclin B1 is targeted for degradation by the anaphase-promoting complex (APC), allowing for cell cycle progression. Research studies have shown that cyclin B1 is overexpressed in breast, prostate, and non-small cell lung cancers.

### Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 60 kDa

### Swiss-Prot:

P14635

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB 1:500 - 1:2000

IHC 1:50 - 1:200

IF 1:50 - 1:200

IP 1:50 - 1:100

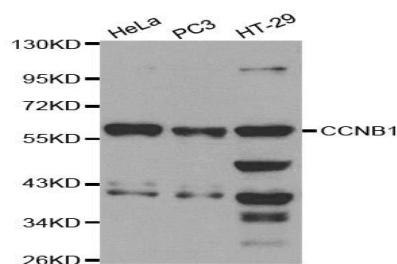
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

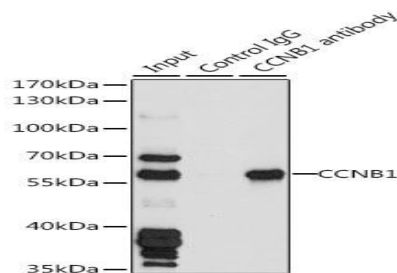
### Specificity:

CCNB1 polyclonal antibody detects endogenous levels of CCNB1 protein.

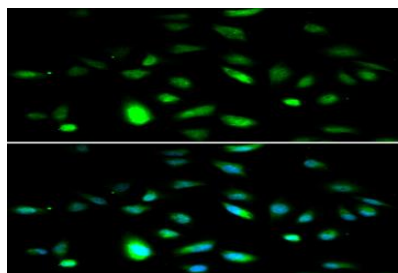
### DATA:



Western blot analysis of Cyclin B1 polyclonal antibody



Immunoprecipitation analysis of 200ug extracts of HeLa cells, using 3 ug CCNB1 antibody.



Immunofluorescence analysis of A549 cells, using Cyclin B1 polyclonal

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## PRODUCT DATA SHEET

Bioworld Technology, Inc.

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antibody

For research use only, not for use in diagnostic procedure.

Note:

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