

AP09487PU-N**Polyclonal Antibody to Cyclin B1 pSer147 - Aff - Purified****Alternate names:**

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

Quantity:

0.1 mg

Concentration:

1.0 mg/ml

Background:

In mammals, cyclin B associates with inactive p34 cdc2 which facilitates phosphorylation of p34 cdc2 at amino acids 14 Thr and 15 Tyr. This maintains the inactive state until the end of G2 phase. The inactive cyclin B p34 cdc2 complex continues to accumulate in the cytoplasm until the completion of DNA synthesis, when Cdc25, a specific protein phosphatase, dephosphorylates amino acids 14Thr and 15Tyr of p34 cdc2, 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. Therefore, cyclin B p34 cdc2 plays a critical role in G2 to M transition. Two alternative transcripts have been found, a constitutively expressed transcript, and a cell cycle-regulated transcript that is expressed predominantly during G2/M phase. The different transcripts result from the use of alternate transcription initiation sites.

Uniprot ID:[P14635](#)**NCBI:**[NP_114172](#)**GenelD:**[891](#)**Host:**

Rabbit

Immunogen:

Synthetic phosphopeptide derived from human Cyclin B1 around the phosphorylation site of Serine 147 (A-F-Sp-D-V).

Format:**State:** Liquid purified Ig fraction**Purification:** Immunoaffinity Chromatography**Buffer System:** PBS (without Mg²⁺ and Ca²⁺), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol.**Applications:****Immunofluorescence:** 1/100 - 1/200.**Immunohistochemistry on Paraffin Sections:** 1/50 - 1/100.**Western Blot:** 1/500 - 1/1000; Incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0,1% Tween-20 at 4°C with gentle shaking, overnight.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This Antibody detects endogenous levels of Cyclin B1 only when phosphorylated at Serine 147.

Species: Human.

Other species not tested.

Storage:

Store the antibody (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

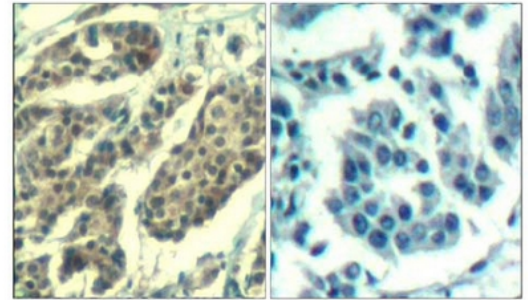
Shelf life: One year from despatch.

General Readings:

1. Norbury, C. and Nurse, P. (1992) *Annu. Rev. Biochem.* 61, 441-470.
2. Atherton-Fessler, S. et al. (1993) *Mol. Cell. Biol.* 13, 1675-1685.
3. Galaktionov, K. et al. (1995) *Genes Dev.* 9, 1046-1058.

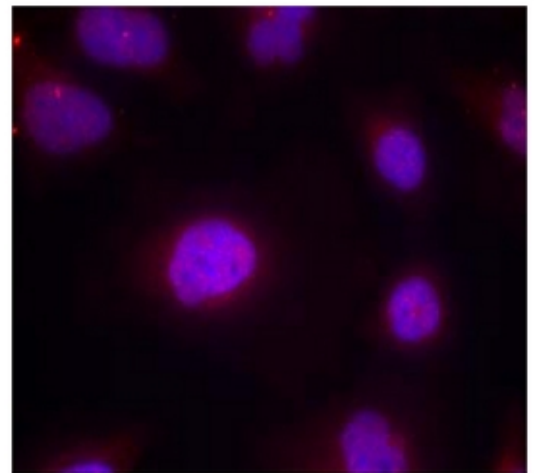
Pictures:

Figure 1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Cyclin B1 pSer147 Antibody (#AP09487PU).



P-Peptid - +

Figure 2. Immunofluorescence staining of methanol-fixed HeLa cells using Cyclin B1 pSer147 Antibody (#AP09487PU, Red).



Western Blot analysis of extracts from MDA cells untreated or treated with Anisomycin using Cyclin B1 (pSer147) antibody

