

## Product datasheet for **AP09487PU-S**

### Cyclin B1 (CCNB1) pSer147 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Immunofluorescence:</b> 1/100 - 1/200. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50 - 1/100. <b>Western Blot:</b> 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.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic phosphopeptide derived from human Cyclin B1 around the phosphorylation site of Serine 147 (A-F- <i>S</i> p-D-V).
Specificity:	This Antibody detects endogenous levels of Cyclin B1 only when phosphorylated at Serine 147.
Formulation:	PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol. State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	cyclin B1
Database Link:	<a href="#">Entrez Gene 891 Human P14635</a>



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**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.

**Synonyms:**

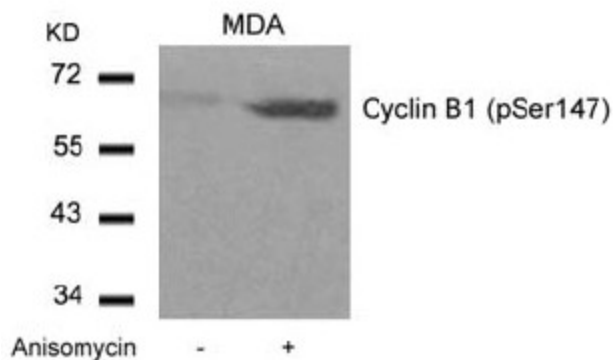
CCNB1, CCNB, Cyclin-B1

**Protein Families:**

Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:**

Cell cycle, Oocyte meiosis, p53 signaling pathway, Progesterone-mediated oocyte maturation

**Product images:**

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

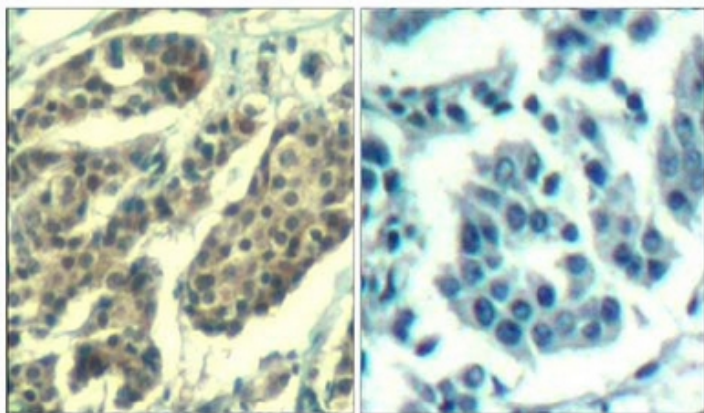


Figure 1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Cyclin B1 pSer147 Antibody.

P-Peptid

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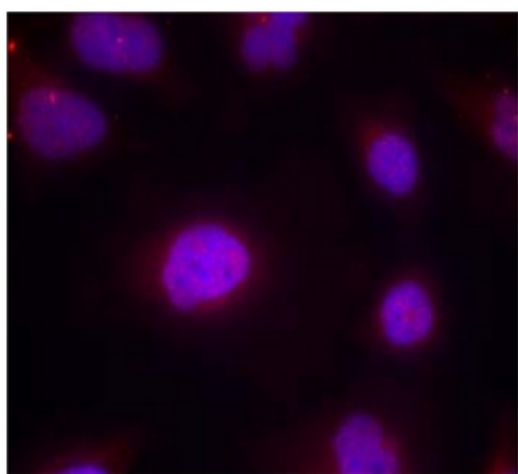


Figure 2. Immunofluorescence staining of methanol-fixed HeLa cells using Cyclin B1 pSer147 Antibody (Red).