

Datasheet for 600-401-464**Cyclin B1 phospho S126 Antibody****Overview**

Description:	Anti-Cyclin B1 pS126 (RABBIT) Antibody - 600-401-464
Item No.:	600-401-464
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Cyclin B1 (also called CCNB1 and G2/mitotic-specific cyclin B1) is a regulatory protein involved in mitosis. The gene product complexes with p34(cdc2) to form a serine/threonine kinase holoenzyme complex called the maturation-promoting factor (MPF). 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. S126 phosphorylation, the site of phosphorylation recognized by this antibody, is involved in an auto-phosphorylation of the cdk -cyclin complex. Recognition of this phosphorylated site suggests the antibody is useful to detect the active form of the complex and may serve as a marker of mitosis.
Synonyms:	rabbit anti-Cyclin B1 pS126 Antibody, Cyclin B1, CCNB1, CCNB, G2/mitotic-specific cyclin-B1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CCNB1
Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phospho-peptide corresponding to an internal region near amino acids 115-140 of Human Cyclin B1 protein.
Purity/Specificity:	This product is an affinity purified antibody produced by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. This antibody is specific for phosphorylated human Cyclin B1 protein at the pS126 residue. BLAST analysis indicates 100 % homology of the immunizing sequence with Cyclin B1 from human. Cross reactivity may occur with Cyclin B1 from rat, dog and chimpanzee as only a single amino acid change was detected within the immunogen sequence from these sources (91% homology). Partial reactivity may also occur with Cyclin B1 from mouse and hamster where two amino acids changes was noted (83% homology). Minimal reactivity is expected with the non-phosphorylated form of the protein.
Relevant Links:	• UniProtKB - P14635 • GenelD - 891

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band ~ 48 kDa in size corresponding to Cyclin B1 by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:50,000
IP:	1:100
WB:	1:100 - 1:1,000

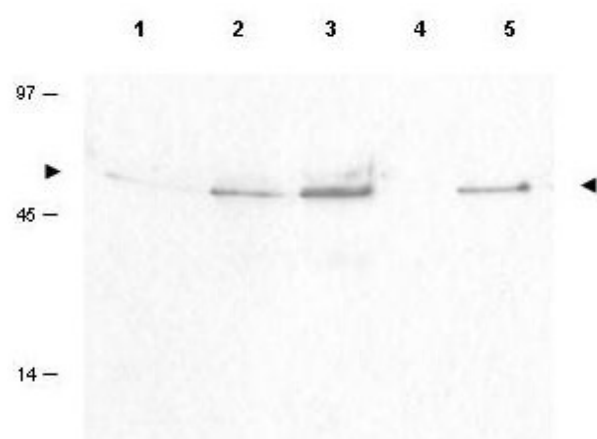
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	2.01 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western blot using Rockland's Affinity Purified anti-Cyclin B1 pS126 antibody shows detection of a band ~48 kDa corresponding to phosphorylated human Cyclin B1 (arrowheads) in various whole cell lysates. Lane 1: Hela (cervical carcinoma) [p/n W09-000-364], Lane 2: H23 (lung carcinoma), Lane 3: Hep3b (Hepatocarcinoma), Lane 4: T98G (Glioblastoma), and Lane 5: Daudi (B cell lymphoblast) [W09-001-MQ2]. Each lane contains approximately 50 µg of lysates, separated by 12% SDS-PAGE using a 5% stack run at 100 volts until the dye front cleared the bottom of the gel. Transfer occurred overnight at 4°C at 15 mAmps. The membrane was blocked with 5% non-fat dry milk in TTBS (p/n B501-0500) for 1 h at room temperature followed by addition of a 1:100 dilution of the antibody allowed to react for 2h at room temperature. After washes with TTBS a 1:5,000 dilution of HRP conjugated Gt-a-Rabbit IgG [H&L] MX (p/n 611-103-122) was added for 1 h at room temperature. After additional washes the membrane was incubated with ECL mix 1:1 for ~3 min. Excess detection solution was drained off and the membrane was exposed to Kodak film X-omat blue XB-1 for about 20 sec. Other detection systems will yield similar results. Personnel Communication, Luca Cote, Temple U.

References

- Barascu A et al. CDK1-cyclin B1 mediates the inhibition of proliferation induced by omega-3 fatty acids in MDA-MB-231 breast cancer cells. *Int J Biochem Cell Biol.* (2006)

Disclaimer

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