



Rabbit Anti-Cyclin B1 antibody

SL0572R

Product Name:	Cyclin B1
Chinese Name:	周期素B1抗体
Alias:	CCNB 1; CCNB; CCNB1; CCNB1_HUMAN; G2 mitotic specific cyclin B1; G2/mitotic-specific cyclin-B1.
文献引用 	<p>Specific References(9) SL0572R has been referenced in 9 publications.</p> <p>[IF=3.73]Ghate, Nikhil Baban, et al. "An Antioxidant Extract of Tropical Lichen, Parmotrema reticulatum, Induces Cell Cycle Arrest and Apoptosis in Breast Carcinoma Cell Line MCF-7." PLOS ONE 8.12 (2013): e82293.WB;Human. PubMed:24358166</p> <p>[IF=2.08]Zhang, Jihong, et al. "Interleukin 18 augments growth ability via NF-κB and p38/ATF2 pathways by targeting cyclin B1, cyclin B2, cyclin A2, and Bcl-2 in BRL-3A rat liver cells." Gene (2015).WB;Rat. PubMed:25752290</p> <p>[IF=2.22]Wang, Chengke, and Zhenxin Wang. "Studying the relationship between cell cycle and Alzheimer's disease by gold nanoparticle probes." Analytical Biochemistry (2015).ELISA;Human. PubMed:26299647</p> <p>[IF=5.01]Ghate, N. B., et al. "Sundew plant, a potential source of anti-inflammatory agents, selectively induces G2/M arrest and apoptosis in MCF-7 cells through upregulation of p53 and Bax/Bcl-2 ratio." Cell Death Discovery 2 (2016).WB;Human. PubMed:27551490</p> <p>[IF=2.16]Zhang, Jin, et al. "Silica nanoparticles induce start inhibition of meiosis and</p>

	<p>cell cycle arrest via down-regulating meiotic relevant factors." Toxicology Research (2016).WB;Mouse.</p> <p style="text-align: center;">PubMed:0</p> <p>[IF=5.01]Guo, Hongrui, et al. "Dietary NiCl₂ causes cell cycle arrest in the broiler's kidney." Oncotarget. (2015) 6.34:35964-77.IHC-P;Chicken.</p> <p style="text-align: center;">PubMed:26440151</p> <p>[IF=1.56]Qu, Zhongyuan, et al. "Chelidonine induces mitotic slippage and apoptotic-like death in SGC-7901 human gastric carcinoma cells." Molecular medicine reports 13.2 (2016): 1336-1344.WB;Human.</p> <p style="text-align: center;">PubMed:26677104</p> <p>[IF=3.58]Wang, Qi, et al. "Methamphetamine induces hepatotoxicity via inhibiting cell division, arresting cell cycle and activating apoptosis: In vivo and in vitro studies." Food and Chemical Toxicology (2017).WB;Rat.</p> <p style="text-align: center;">PubMed:28341135</p> <p>[IF=3.13]Zhang, Wen-feng, et al. "Angelica polysaccharides inhibit the growth and promote the apoptosis of U251 glioma cells in vitro and in vivo." Phytomedicine (2017).WB;Human.</p> <p style="text-align: center;">PubMed:0</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,
Applications:	<p>WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestIF=1:100-500 (Paraffin sections need antigen repair)</p> <p>not yet tested in other applications.</p> <p>optimal dilutions/concentrations should be determined by the end user.</p>
Molecular weight:	48kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Cyclin B1:271-433/433
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

The protein encoded by this gene is a regulatory protein involved in mitosis. The gene product complexes with p34(cdc2) to form 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. [provided by RefSeq, Jul 2008].

Function:

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

Subunit:

Interacts with the CDC2 protein kinase to form a serine/threonine kinase holoenzyme complex also known as maturation promoting factor (MPF). The cyclin subunit imparts substrate specificity to the complex. Binds HEI10. Interacts with catalytically active RALBP1 and CDC2 during mitosis to form an endocytotic complex during interphase. Interacts with CCNF; interaction is required for nuclear localization.

Subcellular Location:

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton, centrosome.

Post-translational modifications:

Ubiquitinated by the SCF(NIPA) complex during interphase, leading to its destruction. Not ubiquitinated during G2/M phases. Phosphorylated by PLK1 at Ser-133 on centrosomes during prophase: phosphorylation by PLK1 does not cause nuclear import. Phosphorylation at Ser-147 was also reported to be mediated by PLK1 but Ser-133 seems to be the primary phosphorylation site.

Similarity:

Belongs to the cyclin family. Cyclin AB subfamily.

SWISS:

P24860

Gene ID:

891

Database links:

[Entrez Gene: 891](#)Human

[Entrez Gene: 268697](#)Mouse

[Entrez Gene: 25203](#)Rat

[Omim: 123836](#)Human

[SwissProt: P14635](#)Human

Product Detail:

[SwissProt: P24860](#)Mouse

[SwissProt: P30277](#)Rat

[Unigene: 23960](#)Human

[Unigene: 260114](#)Mouse

[Unigene: 380027](#)Mouse

[Unigene: 482545](#)Mouse

[Unigene: 9232](#)Rat

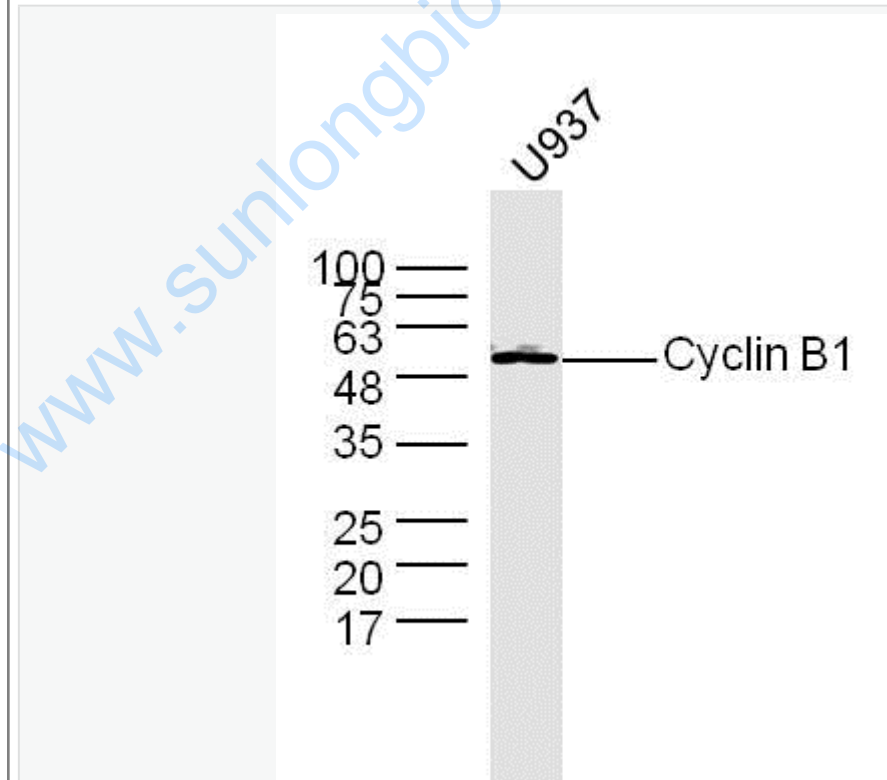
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

主要出现在G2期。Cyclin B是细胞周期调节必不可少的条件。

细胞周期素B1是细胞周期调节因子，它的异常表达将导致细胞周期发生紊乱，致使Tumour形成。

Picture:



Sample:

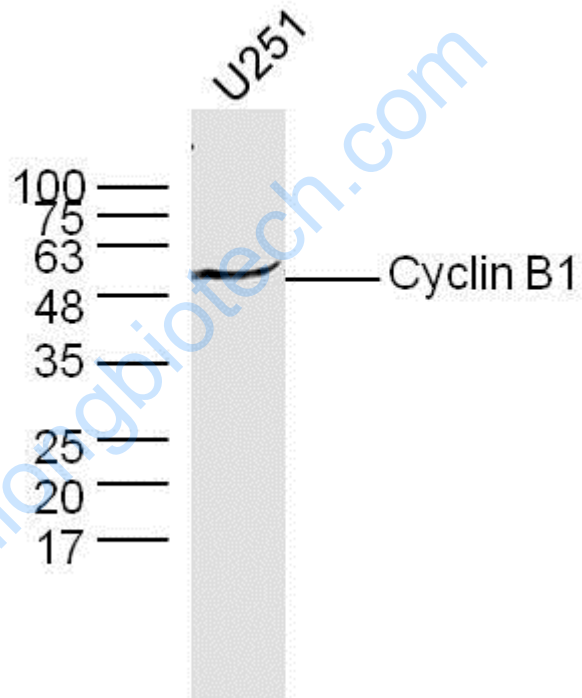
U937 Cell (Human) Lysate at 30 ug

Primary: Anti- Cyclin B1 (SL0572R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48 kD

Observed band size: 50 kD



Sample:

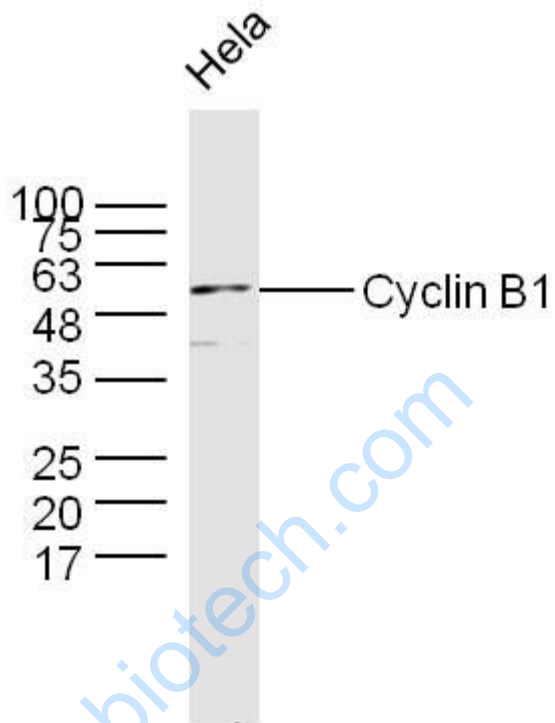
U251 Cell (Human) Lysate at 30 ug

Primary: Anti- Cyclin B1 (SL0572R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48 kD

Observed band size: 50 kD



Sample:

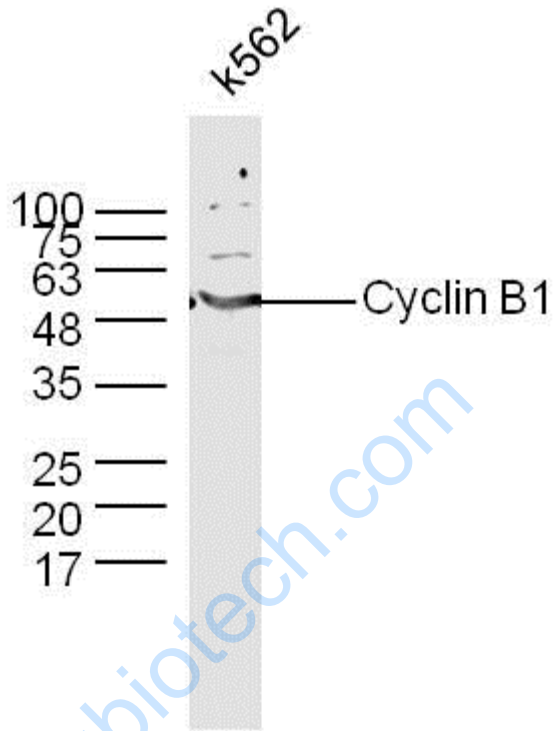
HeLa Cell (Human) Lysate at 30 ug

Primary: Anti- Cyclin B1 (SL0572R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48 kD

Observed band size: 50 kD



Sample:

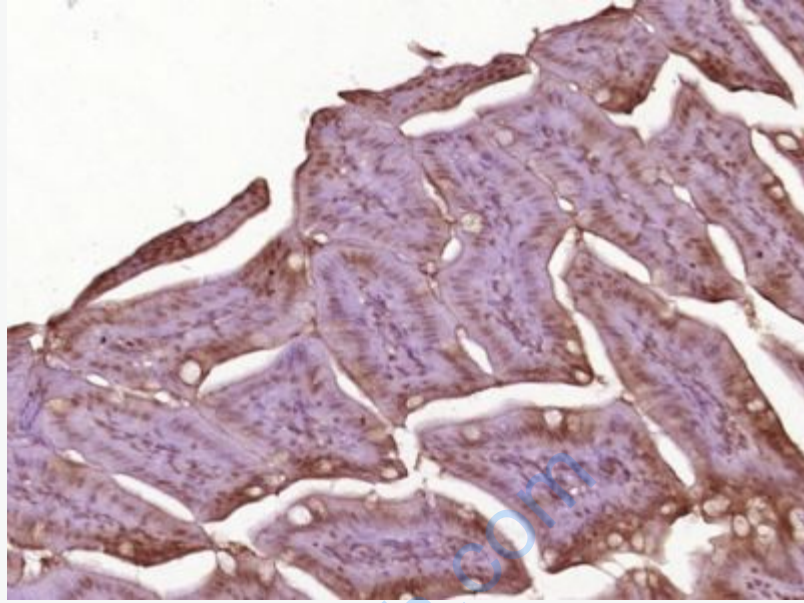
K562 Cell (Human) Lysate at 30 ug

Primary: Anti- Cyclin B1 (SL0572R) at 1/300 dilution

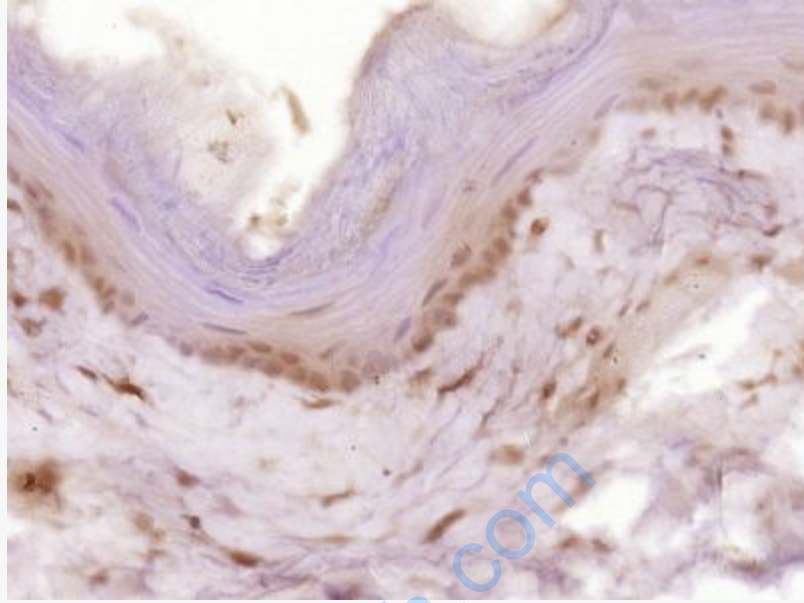
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 48 kD

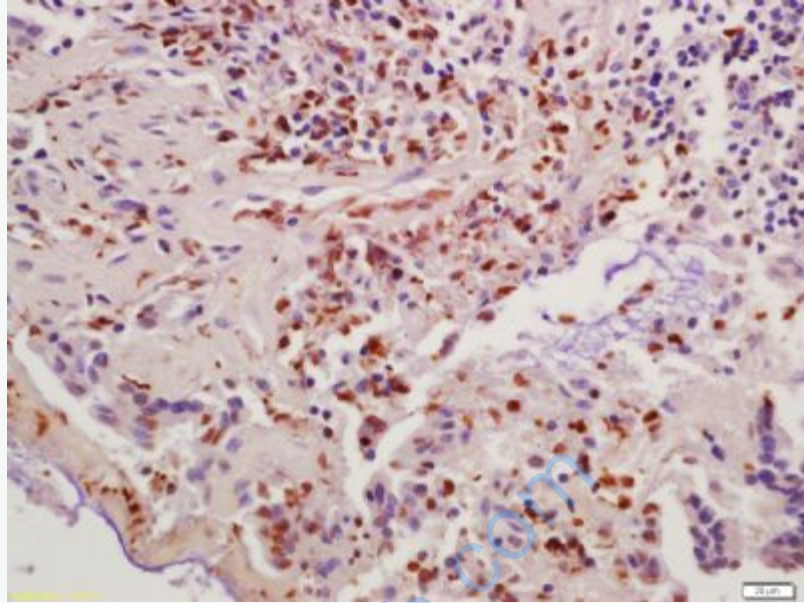
Observed band size: 50 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse small intestine); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cyclin B1) Polyclonal Antibody, Unconjugated (SL0572R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



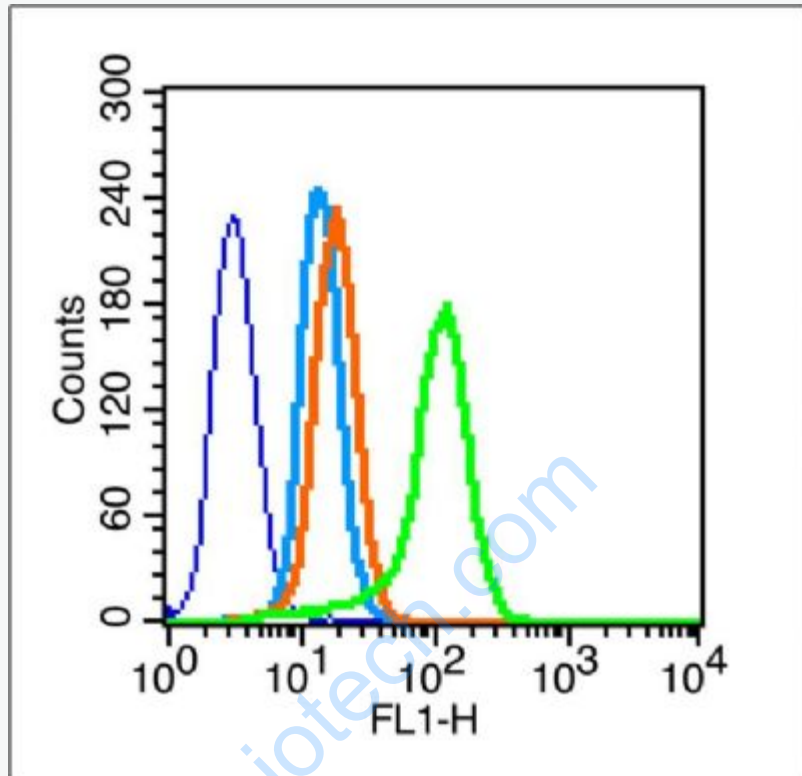
Paraformaldehyde-fixed, paraffin embedded (Rat esophageal); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cyclin B1) Polyclonal Antibody, Unconjugated (SL0572R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Cyclin B1 Polyclonal Antibody, Unconjugated(SL0572R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): A549 (blue).

Primary Antibody (green line): Rabbit Anti-Cyclin B1 antibody (bs-0572R).

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

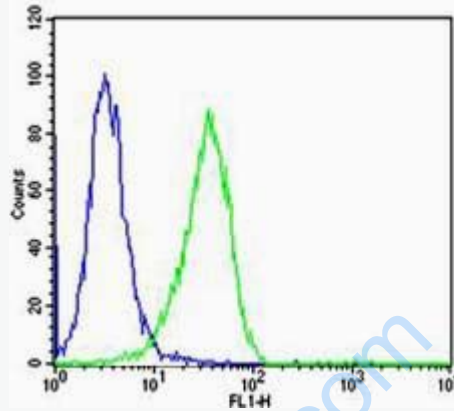
Secondary Antibody (white blue line): F(ab')₂ fragment goat anti-rabbit IgG-FITC.

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody

used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Cell: HeLa

Concentration: 1:100

Host/Isotype: Rabbit/IgG

Flow cytometric analysis of primary antibody (Cat#: bs-0572R) on HeLa (green) compared with isotype control in the absence of primary antibody (blue) followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG(H+L) secondary antibody .