


# Cyclin B1 (G2- & M-phase Cyclin); Clone CCNB1/1098 (Concentrate)

**Availability/Contents:**


<u>Item #</u>	<u>Volume</u>
RA0429-C.5	0.5 ml

**Description:**

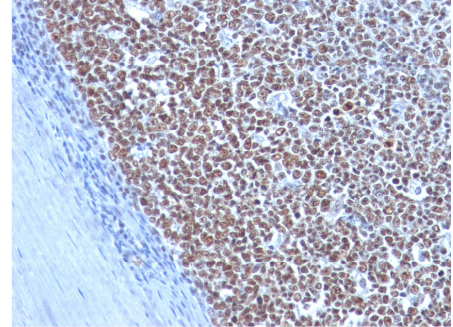
Species:	Mouse
Immunogen:	Recombinant human CCNB1 protein
Clone:	CCNB1/1098
Isotype:	IgG1, kappa
Entrez Gene ID:	891 (Human); 268697 (Mouse)
Hu Chromosome Loc.:	5q13.2
Synonyms:	CCNB, CCNB1, CCNB1_HUMAN, G2 Mitotic Specific Cyclin B1
Mol. Weight of Antigen:	55-62kDa
Format:	200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Specificity:	This antibody recognizes a protein of 55-62kDa, identified as cyclin B1.
Background:	In mammals, cyclin B associates with inactive p34 <sup>cdc2</sup> , which facilitates phosphorylation of p34 <sup>cdc2</sup> at residues 14 <sup>Thr</sup> and 15 <sup>Tyr</sup> . This maintains the inactive state until the end of the G2 phase. The inactive cyclin B-p34 <sup>cdc2</sup> complex continues to accumulate in the cytoplasm until the completion of DNA synthesis, when Cdc25, a specific protein phosphatase, dephosphorylates residues 14 <sup>Thr</sup> and 15 <sup>Tyr</sup> of p34 <sup>cdc2</sup> , rendering the complex active at the G <sub>2</sub> /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. So, cyclin B-p34 <sup>cdc2</sup> plays a critical role in G <sub>2</sub> to M transition.
Species Reactivity:	Human and Mouse. Others not known.
Positive Control:	Any human cell line in logarithmic growth phase, tonsil, or testis.
Cellular Localization:	Cytoplasmic & Nuclear
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml Flow Cytometry: 0.5-1 µg/million cells Immunofluorescence: 1-2 µg/ml Immunoprecipitation: 1-2 µg/500µg protein lysate
Microbiological State:	This product is not sterile.

 Storage: 2° C  8° C


 ScyTek Laboratories, Inc.  
 205 South 600 West  
 Logan, UT 84321  
 U.S.A.



 EmergoEurope (31)(0) 70 345-8570  
 Molsnstraat 15  
 2513 BH Hague, The Netherlands

**Uses/Limitations:** Not to be taken internally.  
 For Research Use Only.  
 This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
 Do not use if reagent becomes cloudy.  
 Do not use past expiration date.  
 Non-Sterile.



Formalin-fixed, paraffin-embedded human tonsil stained with Cyclin B1; Clone CCNB1/1098.

**Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)**

**Procedure:**

1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

**Precautions:**

Contains Sodium Azide as a preservative (0.09% w/v).  
 Do not pipette by mouth.  
 Avoid contact of reagents and specimens with skin and mucous membranes.  
 Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
 This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.


**References:**

1. Galaktionov, K. and Beach D. 1991. Specific activation of Cdc25 tyrosine phosphatases by B type cyclins: Evidence for multiple roles of mitotic cyclins. Cell 67: 1181-1194.


**Warranty:**

No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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