

Product Information

ANTI-CYCLIN B₁ **Developed in Rabbit** **IgG Fraction of Antiserum**

Product No. **C 8831**

Product Description

Anti-Cyclin B₁ is developed in rabbit using highly purified recombinant hamster cyclin B₁ as immunogen. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti-Cyclin B₁ recognizes cyclin B₁ in cells of mouse, hamster and human origin. By immunoblotting, the antibody identifies a predominant band around 62 kDa. By immunohistology, the antibody stains the nucleus at prophase and metaphase. No staining at anaphase is observed.

Anti-Cyclin B₁ may be used for the detection of cyclin B₁ expression and for measuring relative differences in cyclin B₁ level as a function of cell cycle phase. The antibody may be used in immunoblotting and in immunofluorescence assay.

Regulation of cell cycle progression in eukaryotic cells depends on the expression of cyclin proteins. These proteins are the regulatory subunits of the cell cycle-dependent kinases that are responsible for the phosphorylation of several cellular targets. The B cyclins, when combined with p34^{cdc2}, a catalytic subunit of the cell cycle dependent kinase, form an enzyme that is active at the transition to the G2 phase, attaining maximum level at M phase. At that phase, the complex associates with condensed chromosomes in prophase and metaphase and is degraded at the metaphase-anaphase transition.

Reagents

The antibody is supplied as an IgG fraction of antiserum in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Product Profile

1. A titer of at least 1:300 was determined by indirect immunoblotting of cell extracts using Horseradish Peroxidase Conjugated Goat Anti-Rabbit IgG (Sigma Product No. A 9169) as the secondary antibody and luminol plus enhancer as substrate.
2. A titer of at least 1:30 was determined by indirect immunofluorescence using cultured CHO cells.

In order to obtain best results, it is recommended that each user determine the optimal working dilution for individual applications by titration assay.

Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

References

1. Pines, J., and Hunter T., Journal of Cell Biology, **115**, 1 (1991).
2. Sherwood, S., et al., Experimental Cell Research, **211**, 275 (1991).

lpg 4/01

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.