Human Cyclin B1
Alexa Fluor® 647-conjugated Antibody

Monoclonal Rabbit IgG Clone # 2061D
Catalog Number: IC60001R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cyclin B1 in direct ELISAs and Western blots.
Source	Monoclonal Rabbit IgG Clone # 2061D
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived recombinant human Cyclin B1 Met1-Pro91 Accession # P14635
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10^6 cells	K562 human chronic myelogenous leukemia cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Cyclin B1 (also CCNB1 and G2/mitotic-specific cyclin-B1) is a member of the cyclin AB subfamily, cyclin family of proteins. Although its predicted MW is 50 kDa, it runs anomalously at 62 kDa in SDS-PAGE. Cyclin B1 associates with both CDK1 and 2 providing substrate specificity to a phosphorylating complex. A phosphor-CDK1:Cyclin B1 complex is inactive and cytosolic during interphase. At the beginning of mitosis, CDK1 is dephosphorylated and activated, and the CDK1:Cyclin B1 complex initiates formation of the mitotic scaffold. Human Cyclin B1 is 433 amino acids (aa) in length. It contains two cyclin box folds (aa 201-290 and 298-383) and two substrate binding sites (aa 298-342 and 343-380). Phosphorylation occurs at Ser9, Ser35, Ser69, and Thr321. There is one potential alternative start site at Met252 and deletions of aa 363-399 and 365-433. Over aa 1-91, human Cyclin B1 shares 63% aa identity with mouse Cyclin B1.

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bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449