



CCNB1 Antibody

#24236

Catalog Number: 24236-1, 24236-2

Amount: 50µg/50µl, 100µg/100µl

Swiss-Prot No. : P14635

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Storage/Stability: Store at -20°C/1 year

Immunogen: The antiserum was produced against synthesized peptide derived from Human CCNB1

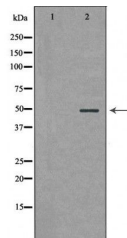
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Specificity/Sensitivity: CCNB1 Antibody detects endogenous levels of total CCNB1

Reactivity: Human, Mouse, Rat

Applications:

Predicted MW: 48kd WB: 1:500-2000 IHC: 1:50-200



Western blot analysis of extracts of HepG2 cell lines, using CCNB1 antibody.

Background : Cyclins are a family of proteins that activate specific cyclin-dependent kinases required for progression through the cell cycle. The entry of all eukaryotic cells into mitosis is regulated by activation of cdc2/cdk1 at the G2/M transition. This activation is a multi-step process that begins with the binding of the regulatory subunit, cyclin B1, to cdc2/cdk1 to form the mitosis-promoting factor (MPF). MPF remains in the inactive state until phosphorylation of cdc2/cdk1 at Thr161 by cdk activating kinase (CAK) and dephosphorylation of cdc2/cdk1 at Thr14/Tyr15 by cdc25C. Four cyclin B1 phosphorylation sites (Ser126, 128, 133, and 147) are located in the cytoplasmic retention signal (CRS) domain and are thought to regulate the translocation of cyclin B1 to the nucleus at the G2/M checkpoint, promoting nuclear accumulation and initiation of mitosis. While MPF itself can phosphorylate Ser126 and Ser128, polo-like kinase 1 (PLK1) phosphorylates cyclin B1 preferentially at Ser133 and possibly at Ser147. At the end of mitosis, cyclin B1 is targeted for degradation by the anaphase-promoting complex (APC), allowing for cell cycle progression. Research studies have shown that cyclin B1 is overexpressed in breast, prostate, and non-small cell lung cancers.