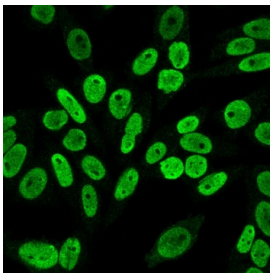
Cyclin B1 Antibody [clone V92.1] (V2024)

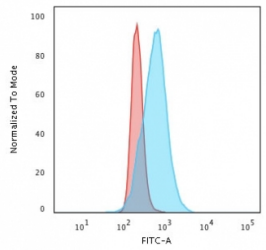
Catalog No.	Formulation	Size
V2024-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2024-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2024SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (1) **Bulk quote request**

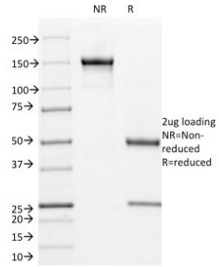
Species Reactivity	Human, Mouse
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	V92.1
Purity	Protein G affinity chromatography
Gene ID	891
Localization	Nuclear, cytoplasmic
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Immunoprecipitation : 1-2ug/500ug protein (precipitates active CDK1/cyclin B1 complexes)
Limitations	This **Cyclin B1 antibody** is available for research use only.



Immunofluorescent staining of PFA-fixed human HeLa cells with Cyclin B1 antibody (clone V92.1).



Flow cytometry testing of PFA-fixed human HeLa cells with Cyclin B1 antibody (clone V92.1); Red=isotype control, Blue= Cyclin B1 antibody.



SDS-PAGE analysis of purified, BSA-free Cyclin B1 antibody (clone V92.1) as confirmation of integrity and purity.

Description

This antibody recognizes a protein of 55-62kDa, identified as Cyclin B1. In mammals, Cyclin B1 associates with inactive p34cdc2, which facilitates phosphorylation of p34cdc2 at amino acids Thr-14 and Tyr-15. This maintains the inactive state until the end of G2-phase. The inactive Cyclin B1-p34cdc2 complex continues to accumulate in the cytoplasm until the completion of DNA synthesis, when Cdc25, a specific protein phosphatase, dephosphorylates amino acids Thr-14 and Tyr-15 of p34cdc2 rendering the complex active at the G2/M boundary. This mitotic kinase complex remains active until the metaphase/anaphase transition when Cyclin B1 is degraded. This degradation process is ubiquitin-dependent and is necessary for the cell to exit mitosis. Cyclin B1-p34cdc2 plays a critical role in G2 to M transition.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the antibody to be titered up or down for optimal performance.

Immunogen

Hamster protein was used as the immunogen for this Cyclin B1 antibody.

Storage

Store the Cyclin B1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CCNB, CCNB1, Cyclin B1 antibody

References (1)