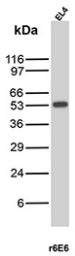
S phase cyclin Antibody / Cyclin A2 [clone r6E6] (V6028)

Catalog No.	Formulation	Size
V6028-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6028-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6028SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

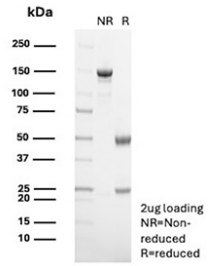
Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	r6E6
UniProt	P20248
Localization	Cytoplasm, Nucleus
Applications	Flow Cytometry: 1-2ug/million cells Immunofluorescence: 1-3ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Western Blot: 2-4ug/ml
Limitations	This recombinant S phase cyclin/Cyclin A2 antibody is available for research use only.



Western Blot analysis of human EL4 lysate using recombinant S phase cyclin/Cyclin A2 antibody (clone r6E6). Predicted molecular weight ~49 kDa.



SDS-PAGE Analysis of purified recombinant S phase cyclin/Cyclin A2 antibody (clone r6E6). Confirmation of Purity and Integrity of Antibody.

Description

S phase cyclin Antibody recognizes Cyclin A2, also known as CCNA2 and Cyclin A, a key regulator of DNA replication and cell cycle progression. Cyclin A2 is a member of the cyclin family of cell cycle proteins and functions as a regulatory partner of cyclin-dependent kinases, particularly CDK2 during S phase and CDK1 during G2 phase. As the principal S phase cyclin, Cyclin A2 controls the initiation and progression of DNA synthesis and coordinates orderly transition toward mitosis. S phase cyclin Antibody is frequently described in the literature as Cyclin A2 antibody or CCNA2 antibody and is widely used in proliferation and oncology research.

Cyclin A2 expression is tightly cell cycle regulated and is largely confined to actively cycling cells. CCNA2 levels rise during S phase, where Cyclin A2-CDK2 complexes drive DNA replication, and remain elevated through G2 phase as Cyclin A2-CDK1 activity contributes to preparation for mitotic entry. In tissue sections, Cyclin A2 staining is typically observed in the nuclei of proliferating epithelial and tumor cells, while quiescent, differentiated, or resting cells show minimal expression. This nuclear localization pattern makes Cyclin A2 a useful marker of S phase activity and cellular proliferation.

Aberrant Cyclin A2 expression has been reported in numerous malignancies. Elevated CCNA2 levels are frequently associated with increased proliferative index, high-grade tumors, and aggressive tumor behavior in certain cancer types. Consequently, Cyclin A2 antibody staining is commonly evaluated in studies examining cell cycle dysregulation, tumor growth, and response to therapeutic interventions. CCNA2 is also investigated in developmental and regenerative biology contexts where controlled cell division is required.

At the molecular level, Cyclin A2 acts as a checkpoint regulator that integrates signals controlling DNA replication and mitotic entry through precise modulation of cyclin-dependent kinase activity. Its essential role in S phase progression and G2-M transition makes S phase cyclin Antibody a valuable tool for assessing proliferative status and studying mechanisms of cell cycle control.

Application Notes

1. Optimal dilution of the recombinant S phase cyclin/Cyclin A2 antibody should be determined by the researcher.

2. This S phase cyclin/Cyclin A2 antibody is recombinantly produced by expression in CHO cells.

Immunogen

Recombinant protein corresponding to the N-terminal fragment of cyclin A protein was used as the immunogen for the recombinant S phase cyclin/Cyclin A2 antibody.

Storage

S phase cyclin/Cyclin A2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

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