

DATASHEET

CDK2 Mouse Monoclonal Antibody(C2622)

CAT. NO. AMA02234

KEY FEATURES

Target	CDK2	Source / Host	Mouse
Reactivity	Human, Mouse	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Serine/threonine-protein kinase involved in the control of the cell cycle; essential for meiosis, but dispensable for mitosis . Phosphorylates CABLES1, CTNNB1, CDK2AP2, ERCC6, NBN, USP37, p53/TP53, NPM1, CDK7, RB1, BRCA2, MYC, NPAT, SUV39H1, EZH2 . Triggers duplication of centrosomes and DNA . Acts at the G1-S transition to promote the E2F transcriptional program and the initiation of DNA synthesis, and modulates G2 progression; controls the timing of entry into mitosis/meiosis by controlling the subsequent activation of cyclin B/CDK1 by phosphorylation, and coordinates the activation of cyclin B/CDK1 at the centrosome and in the nucleus . Crucial role in orchestrating a fine balance between cellular proliferation, cell death, and DNA repair in embryonic stem cells (ESCs) .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:500
IF/ICC	1:100 - 1:500
FC	1:100 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal to CDK2
Specificity	Recognizes endogenous levels of CDK2 protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human CDK2 expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 34 kD; Observed: 40 kD
Form/Buffer	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CDKN2; Cyclin-dependent kinase 2; Cell division protein kinase 2; p33 protein kinase
Gene Symbol	CDK2
Entrez Gene	1017(Human)
SwissProt	P24941(Human); P97377(Mouse)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

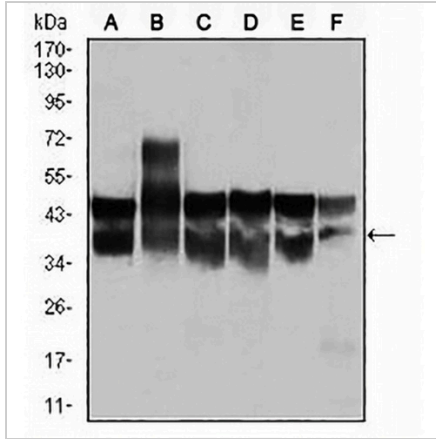
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

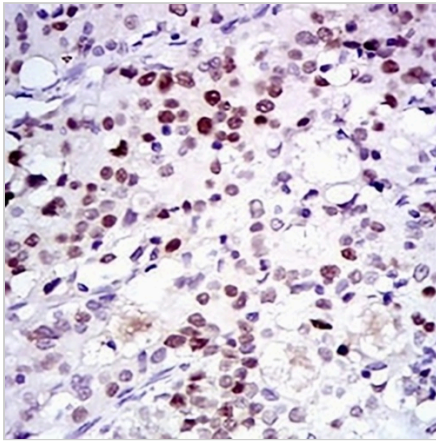
CDK2 Mouse Monoclonal Antibody(C2622)

CAT. NO. AMA02234

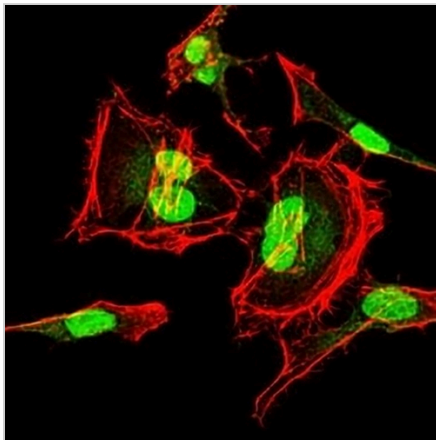
DATA



Western blot analysis of CDK2 expression in Jurkat (A), HL60 (B), K562 (C), A431 (D), HeLa (E), NIH3T3 (F) whole cell lysates. (Predicted band size: 34 kD; Observed band size: 40 kD)



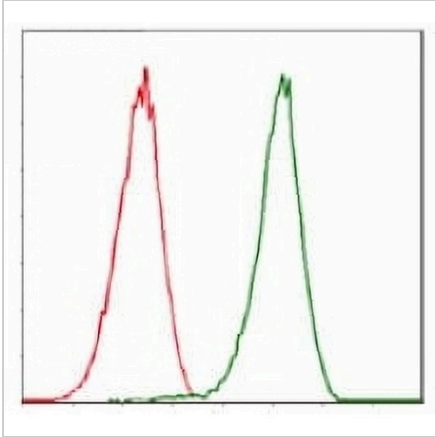
Immunohistochemical analysis of CDK2 staining in human cervical cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CDK2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

DATASHEET**CDK2 Mouse Monoclonal Antibody(C2622)**

CAT. NO. AMA02234

DATA (CONTINUED)

Flow cytometric analysis of Jurkat cells using Anti-CDK2 Antibody (green) and negative control (red).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.