DATASHEET

CDK2 Rabbit Monoclonal Antibody(ARA779)

CAT. NO. ARA6566

KEY FEATURES

Target	CDK2	Source / Host	Rabbit
Reactivity	Human, Rat	Clonality	Monoclonal
Applications	WB,IF/ICC,FC,IP	Conjugation	Unconjugated
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	1:1000-1:2000
IF/ICC	1:10-1:50
FC	1:40-1:200
IP	1:20

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

PRODUCT OVERVIEW

Description	Rabbit Monoclonal Antibody to CDK2
Antibody Type	Primary antibody
Predicted MW	34kDa
Immunogen	A synthetic peptide corresponding to the C-term of CDK2 was used as an immunogen.
Purification	ProA affinity purified IgG
Form / Buffer	PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.54%.
Alternative Names	CDKN2; Cyclin-dependent kinase 2; Cell division protein kinase 2; p33 protein kinase
Gene Symbol	CDK2
Entrez Gene	1017(Human)
Swissprot ID	P24941

*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.

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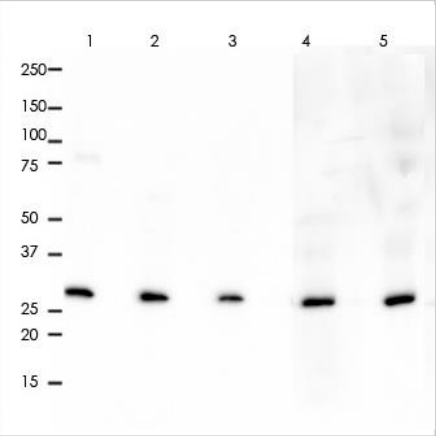
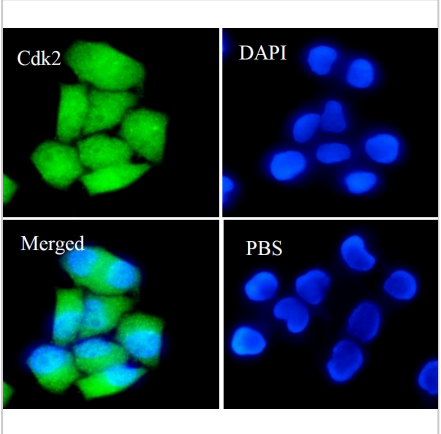
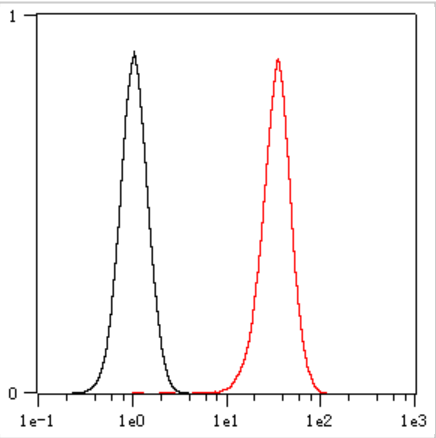


All lanes: Anti-CDK2 antibody at 1:1,000 dilution Predicted MW: 34 kDa Observed MW: 34 kDa Lane 1: Hela Lane 2: JurKat Lane 3: 293 Lane 4: K562 Lane 5: PC-12 Lysate at 10 µg per lane 2nd Ab: GAR HRP(H+L) 1:5,000 Exposure: 20s



ARA779 staining CDK2 in Hela cells by IF/ICC (immunofluorescence/immunocytochemistry). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 10% goat serum for half an hour at room temperature. Samples were incubated with primary antibody (1:50) at 4°C. An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG polyclonal was used as the secondary antibody (1:500). DAPI (blue) was used as the nuclear counter stain. Control: PBS and secondary antibody, An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG (1:500).



Overlay histogram showing Hela cells stained with ARA779 (Red). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% TritonX-100 for 15 min. The cells were then incubated in the antibody (ARA779, 1:200 dilution) in 1x PBS/1% BSA for 30 min at room temperature. The secondary antibody used was a Goat Anti-Rabbit Alexa Fluor® 488 (IgG H+L) at 1:2,000 dilution for 20 min at room temperature. Unlabelled sample (Black) was used as a control.

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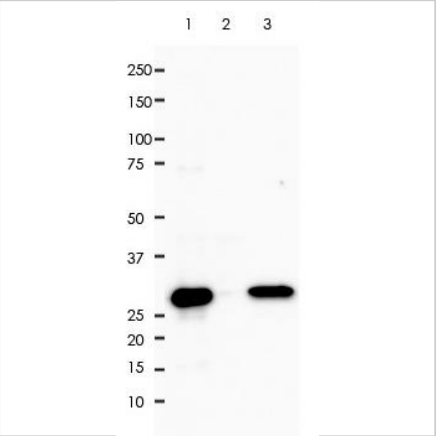

CDK2 was immunoprecipitated from 0.4mg of Jurkat whole cell lysate with ARA779 at 1:20 dilution. 2nd Ab: GAR HRP for IP 1:500 Lane 1: ARA779 IP in Jurkat whole cell lysate Lane 2: PBS instead of ARA779 in Jurkat whole cell lysate Lane 3: Jurkat whole cell lysate, 10 µg (input)

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.

More information: www.arexbio.com