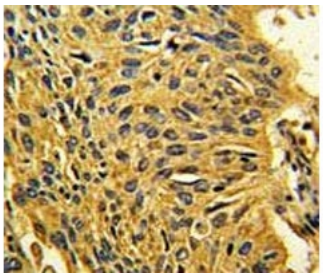
CDK2 Antibody (F50474)

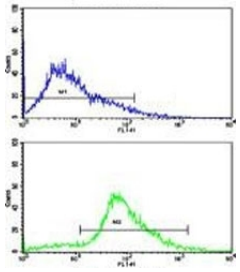
Catalog No.	Formulation	Size
F50474-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50474-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

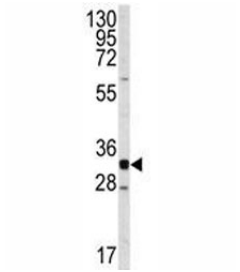
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Bovine, Hamster, Xenopus
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P24941
Applications	Western Blot : 1:1000 IHC (Paraffin) : 1:50-1:100 Flow Cytometry : 1:10-1:50
Limitations	This CDK2 antibody is available for research use only.



IHC analysis of FFPE human lung carcinoma stained with CDK2 antibody



Flow cytometric analysis of Jurkat cells using CDK2 antibody (bottom histogram) compared to a negative control (top histogram). FITC-conjugated goat-anti-rabbit secondary Ab was used for the analysis.



Western blot analysis of CDK2 antibody and Jurkat lysate. Predicted molecular weight ~33 kDa.

Description

CDK2 is a serine/threonine-protein kinase involved in the control of the cell cycle; essential for meiosis, but dispensable for mitosis. Phosphorylates CTNNB1, USP37, p53/TP53, NPM1, CDK7, RB1, BRCA2, MYC, NPAT, EZH2. Interacts with cyclins A, B1, B3, D, or E. 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 human embryonic stem cells (hESCs). Activity of CDK2 is maximal during S phase and G2; activated by interaction with cyclin E during the early stages of DNA synthesis to permit G1-S transition, and subsequently activated by cyclin A2 (cyclin A1 in germ cells) during the late stages of DNA replication to drive the transition from S phase to mitosis, the G2 phase. EZH2 phosphorylation promotes H3K27me3 maintenance and epigenetic gene silencing. Phosphorylates CABLES1 (By similarity). [UniProt]

Application Notes

Titration of the CDK2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 230-260 from the human protein was used as the immunogen for this CDK2 antibody.

Storage

Aliquot the CDK2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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