

Product datasheet for **CF502943**

CDK2 Mouse Monoclonal Antibody [Clone ID: OT11A8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OT11A8
Applications:	FC, IF, WB
Recommended Dilution:	WB 1:2000, IF 1:100, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CDK2 (NP_001789) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	33.7 kDa
Gene Name:	cyclin dependent kinase 2
Database Link:	NP_001789 Entrez Gene 12566 Mouse Entrez Gene 362817 Rat Entrez Gene 1017 Human P24941



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Background:

The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein kinase is highly similar to the gene products of *S. cerevisiae* *cdc28*, and *S. pombe* *cdc2*. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and essential for cell cycle G1/S phase transition. This protein associates with and regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by its protein phosphorylation. Two alternatively spliced variants and multiple transcription initiation sites of this gene have been reported. [provided by RefSeq]

Synonyms:

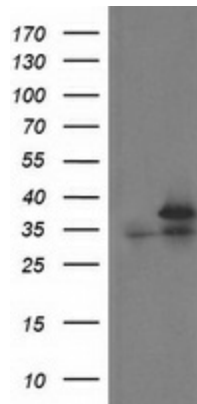
CDKN2; p33(CDK2)

Protein Families:

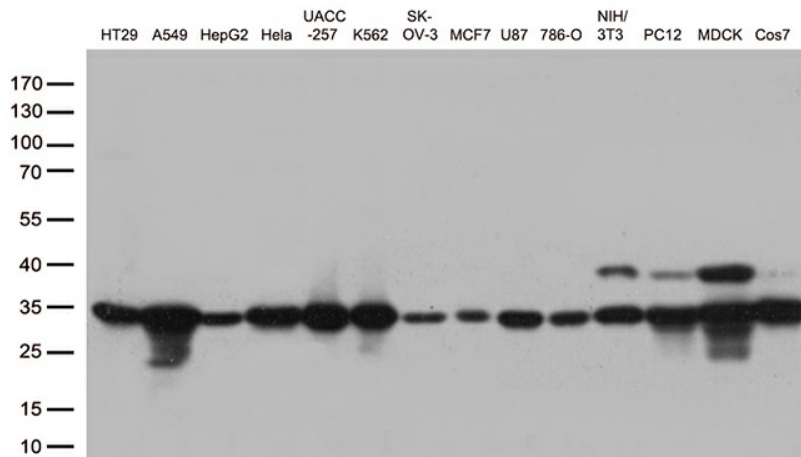
Druggable Genome, Protein Kinase

Protein Pathways:

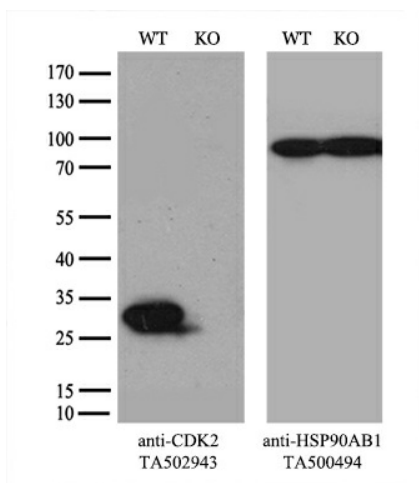
Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Small cell lung cancer

Product images:


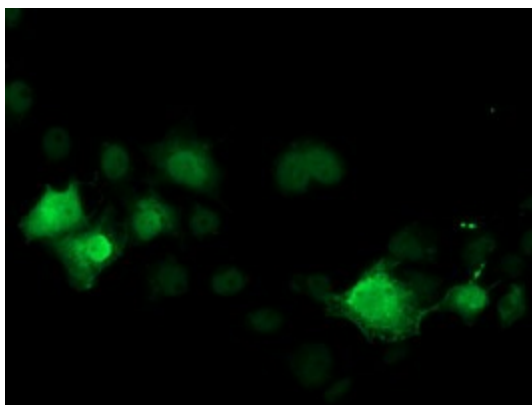
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CDK2 ([RC200494], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDK2. Positive lysates [LY419741] (100ug) and [LC419741] (20ug) can be purchased separately from OriGene.



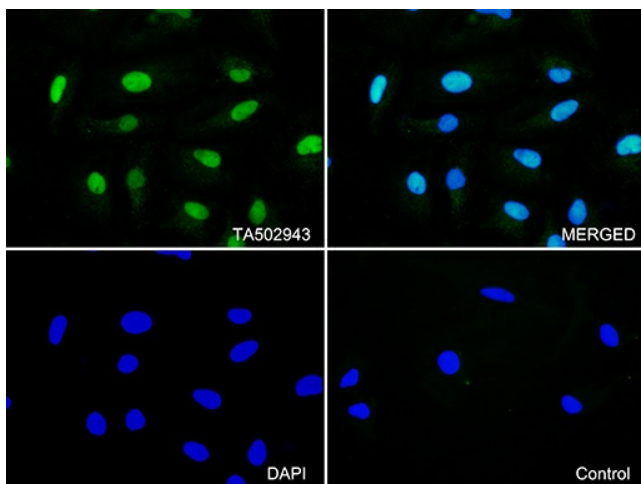
Western blot analysis of extracts (35ug) from 14 cell lines by using anti-CDK2 monoclonal antibody (1:500).



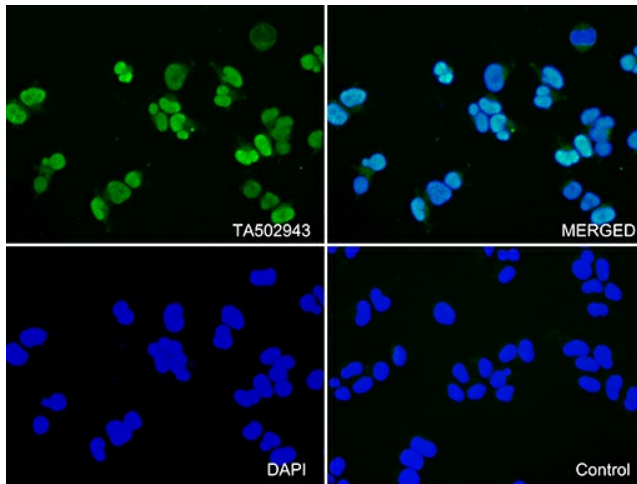
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and CDK2-Knockout 293T cells (KO, Cat# [LC810794]) were separated by SDS-PAGE and immunoblotted with anti-CDK2 monoclonal antibody [TA502943], (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control.



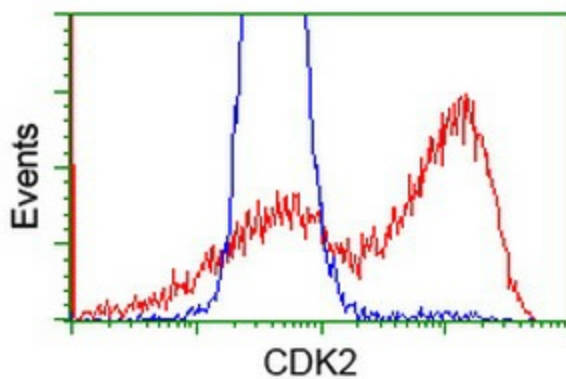
Anti-CDK2 mouse monoclonal antibody ([TA502943]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CDK2 ([RC200494]) (1:100).



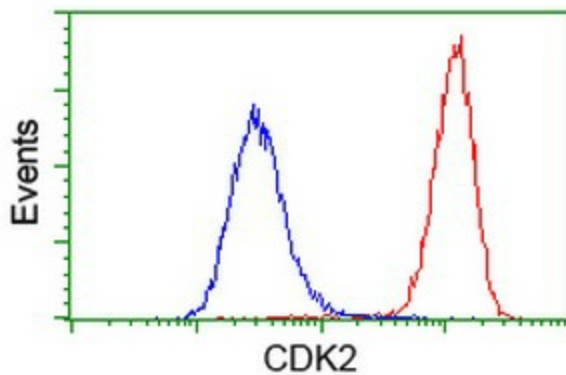
Immunofluorescent staining of HeLa cells using anti-CDK2 mouse monoclonal antibody ([TA502943], green, upper left; merged, upper right) or Isotype control (merged, lower right). Cell nuclei were stained with DAPI (blue, lower left) (1:100).



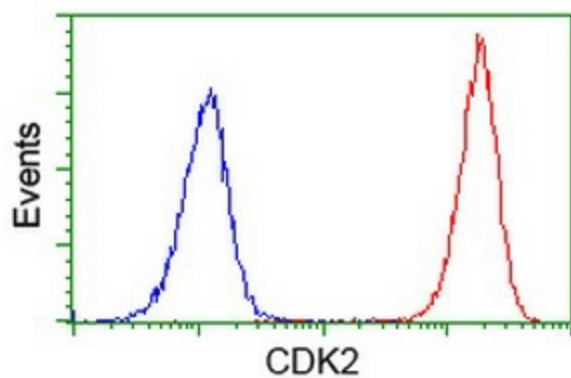
Immunofluorescent staining of 293T cells using anti-CDK2 mouse monoclonal antibody ([TA502943], green, upper left; merged, upper right) or Isotype control (merged, lower right). Cell nuclei were stained with DAPI (blue, lower left) (1:100).



HEK293T cells transfected with either [RC200494] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-CDK2 antibody ([TA502943]), and then analyzed by flow cytometry (1:100).



Flow cytometric Analysis of HeLa cells, using anti-CDK2 antibody ([TA502943]), (Red), compared to a nonspecific negative control antibody, (Blue) (1:100).



Flow cytometric Analysis of Jurkat cells, using anti-CDK2 antibody ([TA502943]), (Red), compared to a nonspecific negative control antibody, (Blue) (1:100).