

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects recombinant human CDK-6 protein in Direct ELISA.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 1092920
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human CDK-6 Met1-Ala326 Accession # Q00534
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

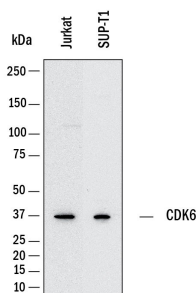
#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	Jurkat human acute T cell leukemia cell line and SUP-T1 human T cell lymphoblastic lymphoma cell line
<b>Immunocytochemistry</b>	3-25 µg/mL	Immersion fixed HepG2 human hepatocellular carcinoma cell line
<b>Immunohistochemistry</b>	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human lung cancer and human pancreatic cancer tissue sections
<b>Simple Western</b>	10 µg/mL	Jurkat human acute T cell leukemia cell line and SUP-T1 human T cell lymphoblastic lymphoma cell line

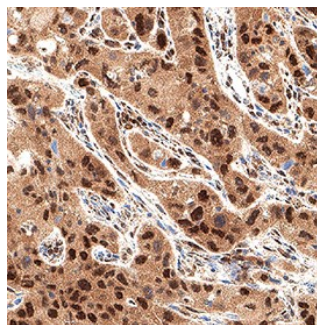
## DATA

### Western Blot



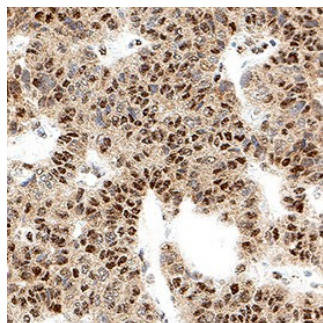
**Detection of Human Cdk6 by Western Blot.** Western Blot shows lysates of Jurkat human acute T cell leukemia cell line and SUP-T1 human T cell lymphoblastic lymphoma cell line. PVDF membrane was probed with 0.5 µg/ml of Mouse Anti-Human Cdk6 Monoclonal Antibody (Catalog # MAB11636) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Cdk6 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

### Immunohistochemistry



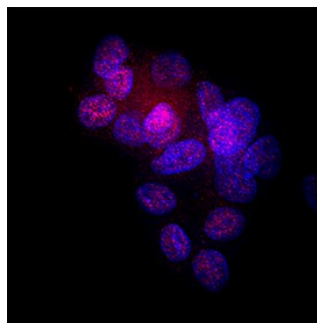
**Detection of Cdk6 in Human Lung Cancer.** Cdk6 was detected in immersion fixed paraffin-embedded sections of human lung cancer using Mouse Anti-Human Cdk6 Monoclonal Antibody (Catalog # MAB11636) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the nucleus and cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

### Immunohistochemistry



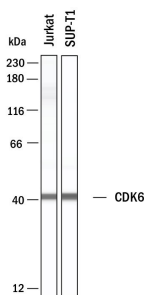
**Detection of Cdk6 in Human Pancreatic Cancer.** Cdk6 was detected in immersion fixed paraffin-embedded sections of human pancreatic cancer using Mouse Anti-Human Cdk6 Monoclonal Antibody (Catalog # MAB11636) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the nucleus and cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

### Immunocytochemistry



**Detection of Cdk6 in HepG2 Human Cell Line.** Cdk6 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Mouse Anti-Human Cdk6 Monoclonal Antibody (Catalog # MAB11636) at 8 µg/ml for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to the nucleus and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

### Simple Western



**Detection of Human Cdk6 by Simple Western™.** Simple Western shows lysates of Jurkat human acute T cell leukemia cell line and SUP-T1 human T cell lymphoblastic lymphoma cell line, loaded at 0.5 mg/ml. A specific band was detected for Cdk6 at approximately 41 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human Cdk6 Monoclonal Antibody (Catalog # MAB11636). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
<b>Shipping</b>	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Cell division protein kinase 6 (CDK6) is an enzyme that is regulated by Cyclin D proteins and Cyclin-dependent kinase inhibitor proteins. CDK6 plays an important role in hematopoiesis and loss of CDK6 causes mild anemia, thymic atrophy and delayed G1 progression in lymphocytes. Overexpression of CDK6 has been reported in T-cell lymphoblastic lymphoma and leukemia and in all B-lymphoid malignancies.

#### References:

1. Meyerson M, Harlow E. Identification of G1 kinase activity for cdk6, a novel cyclin D partner. Mol Cell Biol. 1994 Mar;**14**(3):2077-86. doi: 10.1128/mcb.14.3.2077-2086.1994. PMID: 8114739; PMCID: PMC358568.
2. Nebenfuhr S, Kollmann K, Sexl V. The role of CDK6 in cancer. Int J Cancer. 2020 Dec 1;**147**(11):2988-2995. doi: 10.1002/ijc.33054. Epub 2020 May 30. PMID: 32406095; PMCID: PMC7586846.