


## Product datasheet

# Anti-Cdk7 antibody ab58392

[2 Images](#)

### Overview

<b>Product name</b>	Anti-Cdk7 antibody
<b>Description</b>	Rabbit polyclonal to Cdk7
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ELISA, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide derived from the internal sequence of CDK7 (Human)
<b>Positive control</b>	293 cell extract (Western blot). Human lung carcinoma tissue (IHC-P).

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), 150mM Sodium chloride, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab58392** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		1/20000.
WB		1/500 - 1/1000. Detects a band of approximately 41 kDa (predicted molecular weight: 39 kDa).
IHC-P		Use at an assay dependent concentration.

## Target

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### Function

Cyclin-dependent kinases (CDKs) are activated by the binding to a cyclin and mediate the progression through the cell cycle. Each different complex controls a specific transition between two subsequent phases in the cell cycle. CDK7 is the catalytic subunit of the CDK-activating kinase (CAK) complex, a serine-threonine kinase. CAK activates the cyclin-associated kinases CDK1, CDK2, CDK4 and CDK6 by threonine phosphorylation. CAK complexed to the core-TFIIF basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminus domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts. Involved in cell cycle control and in RNA transcription by RNA polymerase II. Its expression and activity are constant throughout the cell cycle.

### Tissue specificity

Ubiquitous.

### Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

Contains 1 protein kinase domain.

### Post-translational modifications

Phosphorylation of Ser-164 during mitosis inactivates the enzyme.

Phosphorylation of Thr-170 is required for activity.

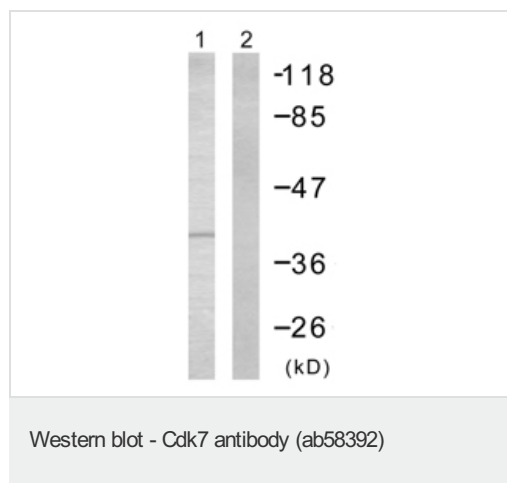
### Cellular localization

Nucleus.

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## Images

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**All lanes** : Anti-Cdk7 antibody (ab58392) at 1/500 dilution

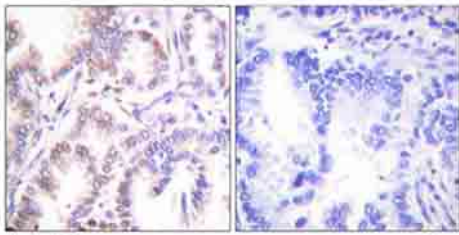
**Lane 1** : 293 cell extract with no immunizing peptide

**Lane 2** : 293 cell extract with immunizing peptide

**Predicted band size:** 39 kDa

**Observed band size:** 41 kDa

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ab58392, at 1/50 dilution, staining human Cdk7 in lung carcinoma tissue, by immunohistochemistry, in the presence or absence of the immunizing peptide. Paraffin embedded tissue.

Immunohistochemistry (Paraffin-embedded sections)  
- Cdk7 antibody (ab58392)

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