

Product datasheet

Anti-Cdk7 antibody ab58392

[2 Images](#)

Overview

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

Properties

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

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-TFIIH 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

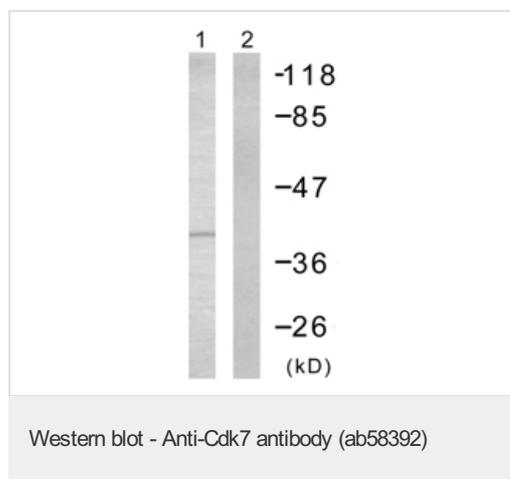
Phosphorylation of Ser-164 during mitosis inactivates the enzyme.

Phosphorylation of Thr-170 is required for activity.

Cellular localization

Nucleus.

Images



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

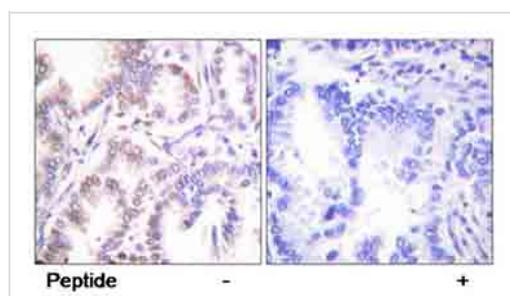
Lane 1 : 293 cell extract with no immunizing peptide

Lane 2 : 293 cell extract with immunizing peptide

Predicted band size: 39 kDa

Observed band size: 41 kDa

[why is the actual band size different from the predicted?](#)



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 (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk7 antibody (ab58392)

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