Datasheet for ABIN7148902

anti-CDK7 antibody (AA 212-341)

2 Images

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Overview

Quantity:	100 µg
Target:	CDK7
Binding Specificity:	AA 212-341
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CDK7 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Cyclin-dependent kinase 7 protein (212-341AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	CDK7
Alternative Name:	CDK7 (CDK7 Products)
Background:	Background: Serine/threonine kinase involved in cell cycle control and in RNA polymerase II-mediated RNA transcription. Cyclin-dependent kinases (CDKs) are activated by the binding to a

Target Details

	cyclin and mediate the progression through the cell cycle. Each different complex controls a specific transition between 2 subsequent phases in the cell cycle. Required for both activation and complex formation of CDK1/cyclin-B during G2-M transition, and for activation of CDK2/cyclins during G1-S transition (but not complex formation). CDK7 is the catalytic subunit of the CDK-activating kinase (CAK) complex. Phosphorylates SPT5/SUPT5H, SF1/NR5A1, POLR2A, p53/TP53, CDK1, CDK2, CDK4, CDK6 and CDK11B/CDK11. CAK activates the cyclin-associated kinases CDK1, CDK2, CDK4 and CDK6 by threonine phosphorylation, thus regulating cell cycle progression. CAK complexed to the core-TFIIH basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminal domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts. Phosphorylation of POLR2A in complex with DNA promotes transcription initiation by triggering dissociation from DNA. Its expression and activity are constant throughout the cell cycle. Upon DNA damage, triggers p53/TP53 activation by phosphorylation, but is inactivated in turn by p53/TP53, this feedback loop may lead to an arrest of the cell cycle and of the transcription, helping in cell recovery, or to apoptosis. Required for DNA-bound peptides-mediated transcription and cellular growth inhibition. Aliases: 39 kDa protein kinase antibody, CAK antibody, CAK1 antibody, Cdk activating kinase antibody, CDK-activating kinase 1 antibody, CDK-activating kinase antibody, cdk7 antibody, CDK7_HUMAN antibody, CDKN7 antibody, Cell division protein kinase 7 antibody, Cyclin dependent kinase 7 antibody, cyclin-dependent kinase 7 (MO15 homolog, Xenopus laevis, cdk-activating kinase) antibody, Cyclin-dependent kinase 7 antibody, HCAK antibody, Homolog of Xenopus MO15 Cdk activating kinase antibody, Kinase subunit of CAK antibody, MO15 antibody, MO15, Xenopus, homolog of antibody, P39 Mo15 antibody, p39MO15 antibody, Serine threonine kinase Stk1 antibody, Serine/threonine protein kinase 1 antibody, Serine/threonine protein kinase MO15 antibody, STK1 antibody, TFIIH basal transcription factor complex kinase subunit antibody
UniProt:	P50613
Pathways:	Cell Division Cycle, DNA Damage Repair, Intracellular Steroid Hormone Receptor Signaling Pathway, Mitotic G1-G1/S Phases, M Phase

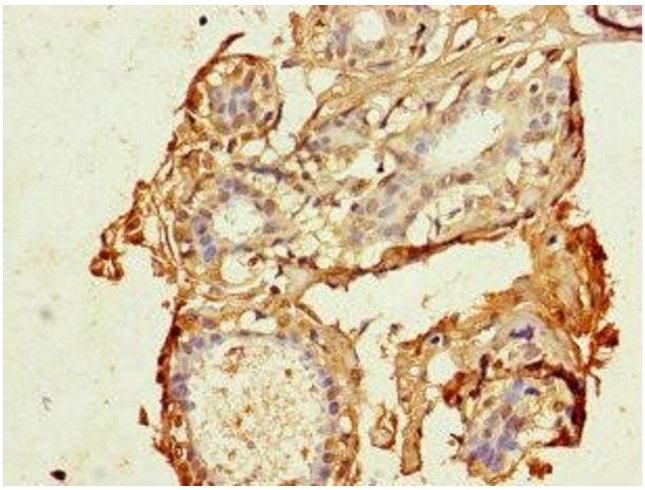
Application Details

Application Notes:	Recommended dilution: IHC:1:20-1:200, IF:1:50-1:200,
Restrictions:	For Research Use only

Handling

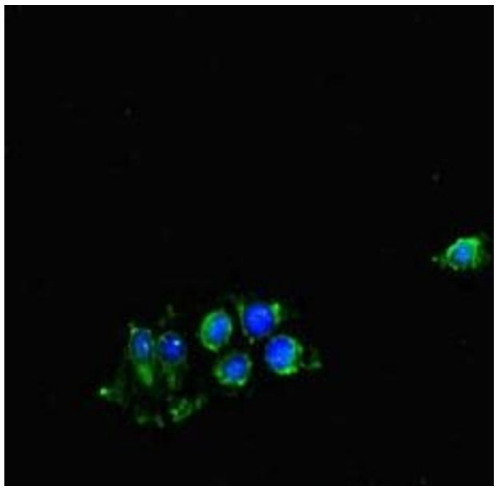
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human breast cancer using ABIN7148902 at dilution of 1:100



Immunofluorescence

Image 2. Immunofluorescent analysis of Hela cells using ABIN7148902 at dilution of 1:100 and Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L)