



# Anti-CDK7 (full length) polyclonal antibody (DPABH-06700)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

**Antigen Description** 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.

<b>Immunogen</b>	Full length protein, corresponding to amino acids 1-346 of Human Cdk7 (NP_001790.1).
<b>Isotype</b>	IgG
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Purification</b>	Protein A purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, ICC/IF
<b>Format</b>	Liquid
<b>Size</b>	50 µg
<b>Buffer</b>	pH: 7.20; Constituent: 99% PBS

<b>Preservative</b>	None
<b>Storage</b>	Store at 4°C short term (1-2 weeks). Aliquot and store at -20°C long term. Avoid repeated freeze / thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">CDK7 cyclin-dependent kinase 7 [ Homo sapiens ]</a>
<b>Official Symbol</b>	Cdk7
<b>Synonyms</b>	CDK7; cyclin-dependent kinase 7; cyclin dependent kinase 7 (homolog of Xenopus MO15 cdk activating kinase); cyclin dependent kinase 7 (MO15 homolog, Xenopus laevis, cdk activating kinase); CAK; CAK1; CDKN7; MO15; STK1; p39 Mo15; protein kinase; 39 KDa protein kinase; kinase subunit of CAK; CDK-activating kinase 1; serine/threonine kinase stk1; cell division protein kinase 7; serine/threonine protein kinase 1; serine/threonine-protein kinase 1; serine/threonine protein kinase MO15; homolog of Xenopus MO15 Cdk-activating kinase; TFIIF basal transcription factor complex kinase subunit; cyclin-dependent kinase 7 (MO15 homolog, Xenopus laevis, cdk-activating kinase); HCAK; p39MO15;
<b>Entrez Gene ID</b>	<a href="#">1022</a>
<b>Protein Refseq</b>	<a href="#">NP_001790</a>
<b>UniProt ID</b>	<a href="#">P50613</a>
<b>Chromosome Location</b>	5q12.1
<b>Pathway</b>	Androgen Receptor Signaling Pathway; B Cell Receptor Signaling Pathway; Basal transcription factors; Cell Cycle; Cell Cycle, Mitotic; Cell cycle;
<b>Function</b>	ATP binding; DNA-dependent ATPase activity; RNA polymerase II carboxy-terminal domain kinase activity; androgen receptor binding; cyclin-dependent protein kinase activity; nucleotide binding; protein C-terminus binding