

Recombinant Human Cyclin-Dependent Kinase 7, His-tagged

Cat. No. CDK7-1151H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the human CDK7 (P50613) (Ala 2 - Phe 346) was fused with a polyhistidine tag at the N-terminus.
Species	Human
Source	Human
ProteinLength	2-346 a.a.
Description	CDK7, also known as 39 kDa protein kinase, CAK1, CDK-activating kinase, Cell division protein kinase 7, TFIIH basal transcription factor complex kinase subunit and CDK7, is a nucleus protein which Belongs to the protein kinase superfamily, CMGC Ser/Thr protein kinase family and CDC2/CDKX subfamily.
Form	Lyophilized from sterile PBS, pH7.4. Normally 5% - 8% trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA.
Purity	> 85% as determined by SDS-PAGE.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.
Predicted N terminal	Met

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Molecular Mass	The recombinant heterotrimer of human CDK7/CCNH/MNAT1 comprises 1032 (364 + 341 + 327) amino acids and has a calculated molecular mass of 118.8 (41.2 + 39.7 + 37.9) kDa. The apparent molecular mass of rh CDK7/CCNH/MNAT1 heterotrimer is approximately 25, 38 & 44 kDa respectively in SDS-PAGE under reducing conditions.
Application	SDS-PAGE
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Storage	Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.
Pathways	Androgen Receptor Signaling Pathway; B Cell Receptor Signaling Pathway; DNA Repair; Eukaryotic Transcription Initiation; HIV Infection; Late Phase of HIV Life Cycle; MicroRNAs in cardiomyocyte hypertrophy; Nucleotide Excision Repair; S Phase; Transcription

GENE INFORMATION

Gene Name	CDK7 cyclin-dependent kinase 7 [Homo sapiens]
Official Symbol	CDK7
Synonyms	CDK7; cyclin-dependent kinase 7; CAK1; MO15; STK1; CDKN7; p39MO15; CAK; p39 Mo15; 39 KDa protein kinase; Cdk-activating kinase; kinase subunit of CAK; serine/threonine kinase stk1; cell division protein kinase 7; serine/threonine protein kinase 1; serine/ threonine protein kinase MO15; cyclin-dependent kinase 7 (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)

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Gene ID	1022
mRNA Refseq	NM_001799
Protein Refseq	NP_001790
MIM	601955
UniProt ID	P50613
Chromosome Location	5q12.1
Function	ATP binding; DNA-dependent ATPase activity; RNA polymerase II carboxy-terminal domain kinase activity; androgen receptor binding; kinase activity; nucleotide binding; protein C-terminus binding; protein complex binding; protein kinase activity; transcription coactivator activity
PDB rendering based on 1ua2.	