

Recombinant Active Human CDK12/Cyclin K Complex Protein, GST-tagged

Cat. No. CDK12-07H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CDK12 (658-end) /Cyclin K complex was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag on both proteins.
Species	Human
Source	Insect Cells
ProteinLength	658-end a.a.
Description	Cyclin-dependent kinase that phosphorylates the C-terminal domain (CTD) of the large subunit of RNA polymerase II (POLR2A), thereby acting as a key regulator of transcription elongation. Regulates the expression of genes involved in DNA repair and is required for the maintenance of genomic stability. Preferentially phosphorylates 'Ser-5' in CTD repeats that are already phosphorylated at 'Ser-7', but can also phosphorylate 'Ser-2'. Required for RNA splicing, possibly by phosphorylating SRSF1/SF2. Involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors.
Molecular Mass	CDK12: Approx 135 kDa CyclinK: Approx 67 kDa
Purity	> 85%
Stability	One year at -70 centigrade from data of shipment.

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 45-1 Ramsey Road, Shirley, NY 11967, USA

Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.05 µg/µL
Storage Buffer	Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 25% glycerol.
Shipping	Dry ice

GENE INFORMATION

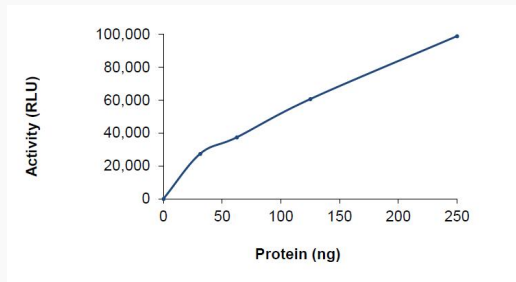
Gene Name	CDK12 cyclin dependent kinase 12 [Homo sapiens (human)]
Official Symbol	CDK12
Synonyms	CDK12; cyclin dependent kinase 12; cyclin-dependent kinase 12; CDC2-related protein kinase 7; Cdc2-related kinase, arginine/serine-rich; cell division cycle 2-related protein kinase 7; cell division protein kinase 12; EC 2.7.11.22; EC 2.7.11.23
Gene ID	51755
mRNA Refseq	NM_015083
Protein Refseq	NP_055898
MIM	615514
UniProt ID	Q9NYV4

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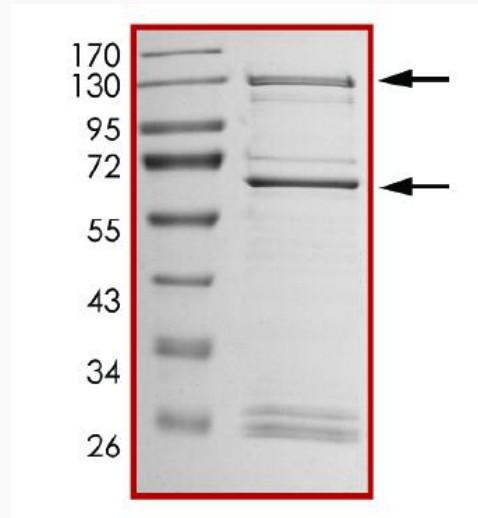
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Specific Activity



The specific activity of CDK12/CyclinK was determined to be 2.2 nmol/min/mg as per activity assay protocol.

Purity



The purity of CDK12/CyclinK was determined to be > 85 % by densitometry.