

Recombinant Human CDK12&Cyclin K Protein

Catalog No.: RP03304LQ **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	51755&8812	Q9NYV4&O75909

Tags

N-GST (CDK12) & N-Flag (Cyclin K)

Synonyms

CDK12; CRK7; CRKRS; KIAA0904; Cyclin-dependent kinase 12; Cyclin K; CCNK; CPR4; Cyclin-K

Product Information

Source	Purification
Baculovirus-Insect Cells	> 90% by SDS-PAGE and HPLC

Calculated MW	Observed MW
71.4 kDa/36.9 kDa	65-75 kDa/30-40 kDa

Endotoxin

< 1.0 EU/μg of the protein by LAL method

Formulation

Supplied as a 0.22 μm filtered solution in 20 mM HEPES, 200 mM NaCl, 5% glycerol, 1 mM DTT. (pH 7.5). Contact us for customized product form or formulation.

Reconstitution

Please use running water to thaw it quickly.

Contact

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Background

CDK12 also known as cell cycle-dependent protein kinase 12 is a cell cycle-dependent protein kinase that functions as a transcription-related kinase. It forms a heterodimeric complex with Cyclin K, which phosphorylates the carboxyl-terminal domain of RNA polymerase II (RNA Pol II) to regulate gene expression. CDK12 is also the most frequently mutated of all CDKs, reaching up to 5%, and its genomic alterations have been identified in cancers, such as prostate cancer, breast cancer, and colorectal cancer.

Basic Information

Description

Recombinant Human CDK12&Cyclin K Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Gln696-Ser1082 (CDK12) & Met1-Ser300 (Cyclin K)) of Human CDK12&CCNK (Accession #Q9NYV4&O75909) fused with a N-GST (CDK12) & N-Flag (Cyclin K) tag.

Bio-Activity

The activity of CDK12/Cyclin K is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

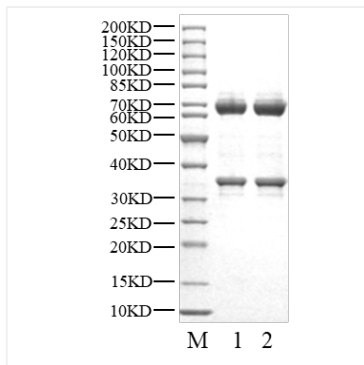
Storage

Store at -70°C. This product is stable at ≤ -70°C for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

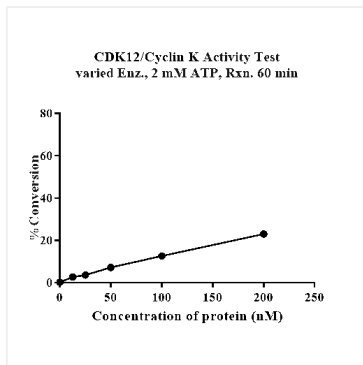
Aliquots below 10 μL are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

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Validation Data



Recombinant Human CDK12&Cyclin K Protein was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.



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