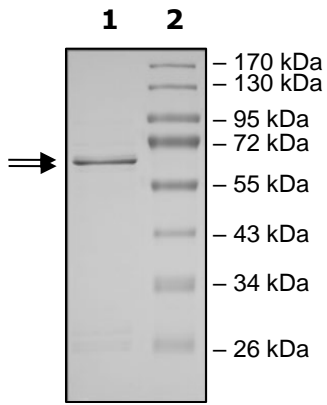


Product Information

Description:	Recombinant human full-length CDK9 (cyclin-dependent kinase) and full-length cyclin K. This complex contains an N-terminal GST-tag. The complex was affinity purified and is active.
Species:	Human
Construct:	CDK9 (GST-Full Length) / CyclinK (GST-Full Length)
Concentration:	0.10 mg/ml
Expression System:	Co-expressed in Sf9
Purity:	≥90% (Purity calculation does not include co-purifying Glutathione-binding proteins.)
Format:	Aqueous buffer solution
Formulated In:	50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM Glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol.
MW:	CDK9: 68 kDa; CyclinK: 67 kDa
Genbank Accession:	CDK9: NM_001261; CyclinK: NM_003858
Stability:	At least 6 months at -80°C. Avoid freeze/thaw cycles.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Specific Activity:	3.0 pmol/min/μg
Assay Conditions:	CDK9/Cyclin K activity was measured by using the PDKStide synthetic peptide (KTFCGTPEYLAPEVRREPRILSEEEQEMFRDFDYIADWC) diluted in 40 mM Tris-HCl (pH 7.5) to a working concentration of 1 mg/ml, in the ADP Glo™ Kinase Assay kit (Promega #V9101). Reaction was initiated by mixing increasing amounts of CDK9/Cyclin K with 25 μM ATP in 40 mM Tris-HCl, pH 7.4, 20 mM MgCl ₂ , 0.1 mg/ml BSA prepared with 50 μM DTT and substrate at a final concentration of 200 μg/ml. After a 40-minute incubation at room temperature, the reaction was terminated by addition of ADP-Glo™ Reagent, followed by a subsequent 40-minute incubation at room temperature. Kinase Detection Reagent was added, and the reaction was incubated for another 30 minutes at ambient temperature. Detection of luminescence was measured using the Luminescence Module Protocol on GloMax®-Multi Microplate Multimode Reader. The Specific Activity was calculated as follows: (Corrected activity, RLU) / [(Specific activity from ADP in RLU/pmol) * (Reaction time in min) * (Enzyme amount in μg or mg)]. Corrected RLU was calculated by subtracting the blank value from all the values. The blank was determined from a “no enzyme” sample by replacing the enzyme solution with an equal volume of Dilution Buffer IX (1x).
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-Page Coomassie Staining



Specific Activity

