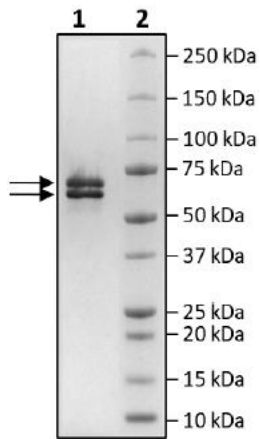


Product Information

Description:	Complex of recombinant human CDK9 (Cyclin-dependent kinase 9), full length, amino acids 2-372(end), and recombinant human CyclinK, full length, amino acids 2-354(end). The CDK9 construct contains an N-terminal GST tag followed by a PreScission protease cleavage site, while the CyclinK construct contains an N-terminal GST-tag followed by a thrombin cleavage site. The proteins were co-expressed and purified as a complex.
Background:	CDK9 (Cyclin-dependent kinase 9) is the catalytic subunit of the positive transcription elongation factor b (P-TEFb) complex, which phosphorylates the C-terminal domain of RNA polymerase II, a key player in the production of mature RNA. P-TEFb also includes CyclinT or CyclinK. CDK9 translocates to the nucleus following autophosphorylation, where it can associate with CyclinT or K. Hyperactivation of cyclins is known to result in cancer and the development of resistance to therapy, and CDK9-CyclinK is involved in genome integrity. Lack of CDK9 or CyclinK was shown to impair cell recovery after cells were stressed and potentiated DNA damage. Further understanding of the role of CDK9/CyclinK in health and disease and how to modulate it may prove beneficial for fields such as cancer therapy.
Species:	Human
Construct:	CDK9 (GST-2-372(end))/CyclinK (GST-Th-2-354(end))
Concentration:	0.24 mg/ml
Expression System:	Sf9
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 20% glycerol, and 3 mM DTT
MW:	CDK9: 69 kDa; CyclinK: 68 kDa
Genbank Accession:	CDK9: NM_001261; CyclinK: NM_003858.3
Stability:	At least 6 months at -80°C.
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.
Assay Conditions:	Assay was done according to Chemi-Verse™ CDK9/CyclinK Kinase Assay Kit (BPS Bioscience #82237) with various amounts of CDK9/CyclinK.
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



CDK9/CyclinK Activity

