CDK2

Cat. No.:	HY-P0235
CAS No.:	255064-79-0
Molecular Formula:	$C_{35}H_{57}N_{15}O_9$
Molecular Weight:	831.92
Sequence:	His-His-Ala-Ser-Pro-Arg-Lys
Sequence Shortening:	HHASPRK
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	CDK2 is a member of the eukaryotic S/T protein kinase family and its function is to catalyze the phosphoryl transfer of ATP γ-phosphate to serine or threonine hydroxyl (denoted as S_0/T_0) in a protein substrate.
In Vitro	CDK2 (Cyclin-dependent kinase 2) is a member of the eukaryotic S/T protein kinase family and its function is to catalyze the phosphoryl transfer of ATP γ-phosphate to serine or threonine hydroxyl (denoted as S_0/T_0) in a protein substrate. The fully active CDK2 is in complex with HHASPRK (an optimal peptide substrate), namely interactions of CDK2 with peptide substrate and the dynamics of the G-loop. CDK2 participates in eukaryotic cell cycle regulation at the G1/S boundary. CDK2 deregulation has been proved to occur in tumor cells, evoking a strong interest in artificial and native inhibitors. CDK2 activity is tightly regulated by a complex mechanism, including a positive regulatory subunit binding, and phosphorylations at positive and/or negative regulatory sites[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bártová I, The mechanism of inhibition of the cyclin-dependent kinase-2 as revealed by the molecular dynamics study on the complex CDK2 with the peptide substrate HHASPRK. Protein Sci. 2005 Feb;14(2):445-51.

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