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## Product Data Sheet

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Product Name: CDK2  
Cat. No.: GC35631

### Chemical Properties

Cas. No. 255064-79-0

Formula  $C_{35}H_{57}N_{15}O_9$  M.Wt 831.92

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

CDK2 is a member of the eukaryotic S/T protein kinase family and its function is to catalyze the phosphoryl transfer of ATP  $\gamma$ -phosphate to serine or threonine hydroxyl (denoted as S0/T0) in a protein substrate.

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  $\gamma$ -phosphate to serine or threonine hydroxyl (denoted as S0/T0) 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].

[1]. Bártov 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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