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Datasheet for ABIN1096359 CDK2 Protein (AA 1-298) (His tag)

Overview

Quantity:	50 µg
Target:	CDK2
Protein Characteristics:	AA 1-298
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK2 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Cyclin-Dependent Kinase 2/CDK2 (N-6His)
Sequence:	MGSSHHHHHH SSSLVPRGSH MENFQKVEKI GEGTYGVVYK ARNKLTGEVV ALKKIRLDTE TEGVPSTAIR EISLLKELNH PNIVKLLDVI HTENKLYLVF EFLHQDLKKF MDASALTGIP LPLIKSYLFQ LLQGLAFCHS HRVLHRDLKP QNLLINTEGA IKLADFGAR AFGVPVRTYT HEVVTWLYRA PEILLGCKYY STAVDIWSLG CIFAEMVTRR ALFPGDSEID QLFRIERTLG TPDEVVWPGV TSMPDYKPSF PKWARQDFSK VVPLDEDGR SLLSQMLHYD PNKRISAKAA LAHPFFQDVT KPVPHLRL
Characteristics:	Recombinant Human Cyclin-Dependent Kinase 2/CDK2 (N-6His)
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered
Endotoxin Level:	Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test

Target Details

Target:	CDK2
Alternative Name:	Cyclin-Dependent Kinase 2/CDK2 (CDK2 Products)
Background:	<p>Recombinant Human Cyclin-Dependent Kinase 2/CDK2 is produced by our E. coli expression system. The target protein is expressed with sequence (Met1-Leu298) of Human CDK2 fused with a His tag at the N-terminus.</p> <p>Cyclin-dependent kinase 2 (CDK2) belongs to the cyclin-dependent kinase of Ser/Thr protein kinase. CDK2 acts as a catalytic subunit of the cyclin dependent kinase complex, whose activity is restricted to the G1-S phase of the cell cycle, it is essential for the G1/S transition. The kinase activity of CDK2 can be regulated by the association with a cyclin subunit, its phosphorylation state and CDK inhibitors. The activation of the CDK2/cyclin complex requires the phosphorylation of Thr160 and the dephosphorylation of Try14 and Tyr15. The inhibition of CDK2-cyclin complex can also be attributed to association with p27Kip1 and p21Waf1/Cip1. The activation of CDK2 has been shown to be necessary for apoptosis of quiescent cells, such as neurons, thymocytes and endothelial cells.</p>
Molecular Weight:	36.1 kDa
UniProt:	P24941
Pathways:	PI3K-Akt Signaling , Cell Division Cycle , Mitotic G1-G1/S Phases , DNA Replication , M Phase , Synthesis of DNA

Application Details

Restrictions:	For Research Use only
Handling	
Format:	Liquid
Reconstitution:	<p>It is not recommended to reconstitute to a concentration less than 100 µg/mL.</p> <p>Dissolve the lyophilized protein in ddH₂O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
Buffer:	Supplied as a 0.2 µm filtered solution of 20 mM TrisHCl, 200 mM NaCl, 1 mM DTT, 40 % Glycerol, pH 8.0.
Preservative:	Dithiothreitol (DTT)
Precaution of Use:	This product contains Dithiothreitol (DTT): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
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Storage:	-80 °C
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Storage Comment:	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
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Expiry Date:	6 months
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