



Recombinant Human Cyclin-dependent Kinase 4

SHANGHAI GENOMICS

rHuCDK4

Catalog number:SG3132-11

Specifications and Use

Source	● Sf9 insect cell
Molecular Mass	● 37.5 kDa
Purity	● ≥ 90% as determined by SDS-PAGE
Tag	● 6 x His
Formulation	● 20mM Tris-HCl, 150mM NaCl, 0.5mM EDTA, pH7.9, 10% glycerol
Stability	● Store at -80°C. Avoid repeated freezing and thawing
Usage	● FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.

Human CDK4

Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin dependent kinases (Cdk). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression. Another family of proteins, Cdk inhibitors, also plays a role in regulating the cell cycle by binding to cyclin-Cdk complexes and modulating their activity. Several Cdk proteins have been identified, including Cdk2-Cdk8, PCTAIRE-1-PCTAIRE-3, PITALRE and PITSIRE. Cdk4, in complex with D-type cyclins, is thought to regulate cell growth during the G1 phase of the cell cycle. This association with a D-type cyclin upregulates Cdk4 activity, whereas binding to the Cdk inhibitor p16 downregulates Cdk4 activity. Activation of the Cdk4-cyclin complexes requires phosphorylation on a single threonyl residue of Cdk4, catalyzed by a Cdk-activating protein (CAK).

Protein Sequence

HHHHHDYDIPTTENLYFQAAMDPEFRANPAMATSRYEPVAEIGVGAYGTVYKARDPHSGHFVALK
SVRVPNGGGGGGLPISTVREVALLRLEAFEHPNVVRLMDVCATSRTDREIKVTLVFEHVDQDLR
TYLDKAPPPGLPAETIKDLMRQFLRGLDFLHANCIVHRDLKPENILVTSGGTVKLADFGLARIYSYQM
ALTPVVVTLWYRAPEVLLQSTYATPVDMWSVGCIFAEMFRRKPLFCGNSEADQLGKIFDLIGLPPED
DWPRDVSLPRGAFPPRGPVQSVPEMEESGAQLLLEMLTFNPHKRISAFRALQHSYLHKDEGN
PE