

# Recombinant Human CDK4, His-tagged

**Cat. No.** CDK4-16H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Recombinant Human Cyclin-Dependent Kinase 4 is expressed in <i>E. coli</i> as a full-length protein having a molecular weight of 38 kDa fused to an amino terminal hexahistidine tag. The CDK4 is purified by proprietary chromatographic techniques.                                                                                                                                          |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | Cyclin-dependent kinase 4 combines with the protein cyclin D to form a protein complex that promotes the passage of cells through the G1 checkpoint in the cell growth cycle. This cellular activity is regulated by the protein p16 produced by p16INK4a. Normally, p16 controls cell growth by inhibiting the activity of the CDK4–cyclin D complex and stopping cells at the G1 checkpoint. |
| <b>Purity</b>           | Greater than 95% as determined by SDS-PAGE. Single band on Western Blot.                                                                                                                                                                                                                                                                                                                       |
| <b>Formulation</b>      | CDK4 is supplied in 1x Laemmli Buffer (25mM Tris-HCl Ph-6.8, 50mM DTT, 1% (w/v) SDS, 0.1%(w/v) Bromophenol Blue and 2.5% Glycerol).                                                                                                                                                                                                                                                            |
| <b>Application</b>      | CDK-4 can be used directly as a positive control in Western blotting, ELISA, immunoprecipitation and other immunological experiments. The biological activity of this product has not yet been tested.                                                                                                                                                                                         |
| <b>Storage</b>          | Store at 4°C if entire vial will be used within 1-2 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.                                                                                                                                                                                                                                               |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CDK4 cyclin-dependent kinase 4 [ Homo sapiens ]                                                                                                                                                                                                                  |
| <b>Synonyms</b>            | cyclin-dependent kinase 4; CMM3; PSK-J3; MGC14458; CDK4; cell division kinase 4; melanoma cutaneous malignant, 3; EC 2.7.11.22                                                                                                                                   |
| <b>Gene ID</b>             | 1019                                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>         | NM_000075                                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_000066                                                                                                                                                                                                                                                        |
| <b>MIM</b>                 | 123829                                                                                                                                                                                                                                                           |
| <b>UniProt ID</b>          | P11802                                                                                                                                                                                                                                                           |
| <b>Chromosome Location</b> | 12q14                                                                                                                                                                                                                                                            |
| <b>Pathway</b>             | Bladder cancer; Cell cycle; Chronic myeloid leukemia; Glioma; Melanoma; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Small cell lung cancer; T cell receptor signaling pathway; Tight junction; p53 signaling pathway; Cell Cycle, Mitotic |
| <b>Function</b>            | cyclin-dependent protein kinase activity; ATP binding; nucleotide binding; transferase activity                                                                                                                                                                  |

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