

## CDC7 Protein

Full length recombinant protein expressed in Sf9 cells

**Catalog # C26-30G**

Lot # 1075-1

### Product Description

Recombinant full-length human CDC7 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is [NM\\_003503](#).

### Gene Aliases

CDC7L1; HsCDC7; Hsk1; huCDC7; MGC117361; MGC126237; MGC126238

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at  $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

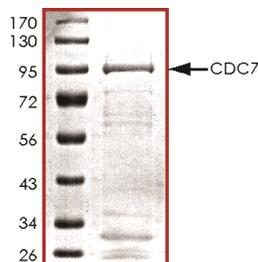
### Scientific Background

CDC7 is a cell division cycle protein that is critical for the G1/S transition and initiation of DNA replication during the cell division cycle. Overexpression of CDC7 gene product may be associated with neoplastic transformation for some tumors. Inhibition of CDC7 in cancer cells impairs progression through S phase, inducing a p53-independent apoptotic cell death, whereas in normal cells, it does not affect cell viability (1). Inhibition of CDC7 kinase activity in cancer cells restricts DNA replication and induces apoptosis. CDC7 phosphorylates the minichromosome maintenance protein 2 (Mcm2), a component of the DNA replicative helicase needed for genome duplication (2).

### References

1. Montagnoli, A. et al: Targeting cell division cycle 7 kinase: a new approach for cancer therapy. Clin Cancer Res. 2010 Sep 15;16(18):4503-8.
2. Chuang, L C. et al: Phosphorylation of Mcm2 by Cdc7 promotes pre-replication complex assembly during cell-cycle re-entry. Mol Cell. 2009 Jul 31;35(2):206-16.

### Purity



The purity of CDC7 was determined to be **>70%** by densitometry. Approx. MW **~94kDa**.

## CDC7

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Catalog Number	C26-30G
Specific Lot Number	1075-1
Purity	>70%
Concentration	0.2 µg/µl
Stability	1yr At $-70^{\circ}\text{C}$ from date of shipment
Storage & Shipping	Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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