

3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

# **Product Information**

Cyclin C, GST-tagged, human recombinant, expressed in Sf9 cells

Catalog Number **SRP5346** Storage Temperature –70 °C

Synonyms: CCNC, CycC

# **Product Description**

Cyclin C is a member of the cyclin family of proteins, interacts with the cyclin-dependent kinase 8 (CDK8), and induces the phophorylation of the carboxy-terminal domain of the large subunit of RNA polymerase II. The mRNA levels of Cyclin C fluctuate during the cell cycle and peak at the  $G_1$  phase. Cyclin C acts as a critical regulator of the  $G_0/G_1$  transition of human hematopoietic stem cells. Cyclin C can also combine with CDK3 to stimulate Rb phosphorylation at S807/811 during the  $G_0/G_1$  transition, and this phosphorylation is required for cells to exit  $G_0$  efficiently.

Recombinant full-length human Cyclin C was expressed by baculovirus in *Sf*9 insect cells using an N-terminal GST-tag. The gene accession number is NM\_005190. It is supplied in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

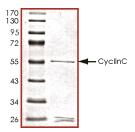
Molecular mass: ~55 kDa

The enzymatic activity of this product has not been determined.

Figure 1.

SDS-PAGE Gel of Typical Lot:

≥70% (SDS-PAGE, densitometry)



#### **Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

The product ships on dry ice and storage at -70 °C is recommended. After opening, aliquot into smaller quantities and store at -70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

## References

- 1. Miyata, Y. et al., Cyclin C regulates human hematopoietic stem/progenitor cell quiescence. Stem Cells., **28**(2), 308-17 (2010).
- Ren, S. et al., Cyclin C/cdk3 promotes Rb-dependent G<sub>0</sub> exit. Cell, 117(2), 239-51 (2004).

RC,MAM 10/12-1