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

p18INK4C, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5106**
Storage Temperature –70 °C

Synonyms: CDKN2C, p18, INK4C, p18-INK4C

Product Description

p18INK4C is a member of the INK4 family of proteins that regulate the G_1 to S cell cycle transition by binding to and inhibiting the pRb kinase activity of cyclin-dependent kinases 4 and 6.[1] Mutation of p18INK4C impairs B cell terminal differentiation and confers increased susceptibility to tumor development. p18INK4C can function as a tumor suppressor gene in Hodgkins lymphoma, and its inactivation may contribute to the cell cycle deregulation and defective terminal differentiation characteristic of the Reed-Sternberg cells.[2]

Recombinant, full-length, human p18INK4C was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_001262. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~42 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

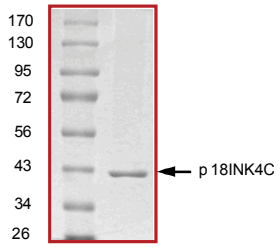
Precautions and Disclaimer

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.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Ravichandran, N. et al., Structure-based Design of $p18^{INK4c}$ Proteins with Increased Thermodynamic Stability and Cell Cycle Inhibitory Activity. J. Biol. Chem., **277**, 48827-48833 (2002).
2. Sánchez-Aguilera, A. et al., Silencing of the p18INK4c gene by promoter hypermethylation in Reed-Sternberg cells in Hodgkin lymphomas. Blood, **103**(6), 2351-7 (2004),.

DKF,MAM 11/11-1