

Product Information

p27KIP1, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5109**
Storage Temperature -70°C

Synonyms: CDKN1B, CDKN4, MEN1B

Product Description

KIP1 (cyclin-dependent kinase inhibitor 1B) is a kinesin-related motor protein required for mitotic spindle assembly and chromosome segregation.¹ Many tumorigenic processes modulate cell-cycle progression by regulating the levels of the cyclin-dependent kinase inhibitor KIP1. KIP1 binds to and inhibits cyclinE-Cdk2 complex, cyclinA-CDK2, and cyclinD1-CDK4.² The phosphorylation and ubiquitination-dependent proteolysis of KIP1 is implicated in control of the G₁-S transition in the cell cycle. KIP1 is critical for retinoblastoma protein (Rb)-induced cellular proliferative senescence.

Recombinant, full-length, human p27KIP1 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_004064. 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: ~52 kDa

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

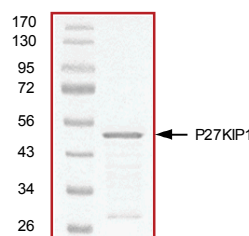
Precautions and Disclaimer

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. Hoyt, M.A. et al., Two *Saccharomyces cerevisiae* kinesin-related gene products required for mitotic spindle assembly. *J. Cell Biol.*, **118**(1), 109-120 (1992).
2. Carrano, A.C. et al., SKP2 is required for ubiquitin-mediated degradation of the CDK inhibitor p27. *Nat. Cell Biol.*, **1**, 193-199 (1999).

DKF, MAM 11/11-1