

## Product Information

### Rb (48-378), GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5124**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonyms: RB1, OSRC

#### Product Description

Rb is the retinoblastoma gene product and was the first tumor suppressor cloned. Rb is a negative regulator of the cell cycle through its ability to bind the transcription factor E2F and repress transcription of genes required for S phase.<sup>1</sup> Rb can bind to MDM2 and this overcomes both the antiapoptotic function of MDM2 and the MDM2-dependent degradation of p53. Rb associates with the Polycomb group (PcG) proteins to form a repressor complex that blocks entry of cells into mitosis.<sup>2</sup> Rb colocalizes with nuclear PcG complexes and is important for association of PcG complexes with nuclear targets.

Recombinant human Rb (48 – 378) was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM\_000321. 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: ~62 kDa

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

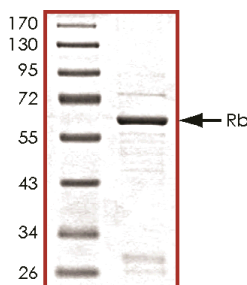
#### Precautions and Disclaimer

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  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

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



#### References

1. Hanahan, D. et al., The hallmarks of cancer. *Cell*, **100**, 57-70 (2000).
2. Dahiya, A. et al., Linking the Rb and Polycomb pathways. *Molec. Cell*, **8**, 557-568 (2001).

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