

Product Information

RAC3, His-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5123**
Storage Temperature -70°C

Product Description

RAC3 is a GTPase, which belongs to the RHO family of small GTP-binding proteins that regulate a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases. RAC3 is primarily expressed in brain and is proposed to play a specific function in neuronal cells. Depletion of RAC3 induces stronger cell adhesion and dramatically increases the outgrowth of neurite-like protrusions; whereas, overexpression of RAC3 results in a contractile round morphology.¹ RAC3 can exert its function through negatively affecting integrin-mediated cell-matrix adhesions.² RAC3 shares with RAC1 the ability to interfere with cadherin-mediated adhesion.

Recombinant, full-length, human RAC3 Protein was expressed in *E. coli* cells using an N-terminal His tag. The gene accession number is NM_005052. Recombinant protein stored in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass: ~24 kDa

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

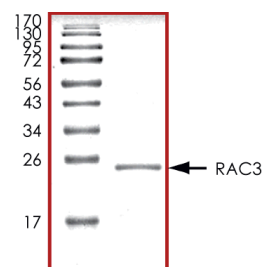
Precautions and Disclaimer

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. Hajdo-Milasinovic, A. et al., Rac3 inhibits adhesion and differentiation of neuronal cells by modifying GIT1 downstream signaling. *J. Cell Sci.*, **122**(Pt 12), 2127-36 (2009).
2. Lozano, E. et al., PAK is required for the disruption of E-cadherin adhesion by the small GTPase Rac. *J. Cell Sci.*, **121**(Pt 7), 933-8 (2008).

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