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

RAC1, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5121**
Storage Temperature –70 °C

Synonyms: MIG5, TC-25, p21-Rac1, MGC111543

Product Description

RAC1 is a member of the Rho family and is a GTPase that is part of the small GTP-binding protein superfamily. RAC1 is involved in a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases.[1] The role of RAC1 in colorectal cancer has been reported after analysis of the protein expression level and activities of this protein in matched sets of tumor and non-tumor tissues. Overexpression of RAC1 leads to increased tumor growth in xenografts of human colorectal tumor cells.[2] RAC1 is also involved in the regulation of critical cellular functions including organization of actin cytoskeleton, transcription control, and cell cycle.

Recombinant, full-length, human RAC1 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_006908. 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: ~47 kDa

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

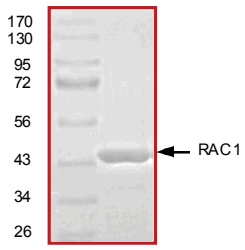
Precautions and Disclaimer

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. Takami, Y. et al., The activity of RhoA is correlated with lymph node metastasis in human colorectal cancer. Dig. Dis. Sci., **53**(2), 467-73 (2008).
2. del Pulgar, T.G. et al., Differential expression of Rac1 identifies its target genes and its contribution to progression of colorectal cancer. Int. J. Biochem. Cell Biol., **39**(12), 2289-302 (2007).

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