

Recombinant Human Rac1, His Tagged

CATALOG NUMBER: STA-728 **STORAGE:** -80°C; avoid freeze/thaw cycles

QUANTITY: 50 µg/vial in Tris-HCl, pH 7.5 with 1 mM EDTA, 1 mM DTT and 10% glycerol

SHELF LIFE: 1 year from date of receipt under proper storage conditions; for longer term storage add 0.1% BSA

Background

Small GTP-binding proteins (or GTPases) are a family of proteins that serve as molecular regulators in signaling transduction pathways. Rac1 belongs to the family of Rho GTPases regulating a variety of biological response pathways that include cell motility, cell division, gene transcription, and cell transformation. Like other small GTPases, Rac1 regulates molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Rac1 binds specifically to the p21-binding domain (PBD) of p21-activated protein kinase (PAK) to control downstream signaling cascades.

Purity and Activity

Cell Biolabs' rRac1 is expressed and purified from *E. coli* as a recombinant protein with purity >95% by SDS-PAGE. It has an approximate MW of 23.6 kDa including a His-tag at the N-terminus.

Sequence

MGSSHHHHHHSSGLVPRGSHMQAIKCVVVG DGAVGKTCLLISYTTNAFPGEYIPTVFDNYSANV
MVDGKPVNLGLWDTAGQEDYDRLRPLSYPTQTDVFLICFSLVSPASFENVRAKWYPEVRHHCPNT
PIILVGTKLDRDDKDTIEKLKEKKLTPITYPQGLAMAKEIGAVKYLECSATQRGLKTVFDEAIRA
VLCPPPVKRRKRKCLLL

References

1. Raftopoulou M., and Hall A. (2004) *Dev Biol.* **265**: 23-32.
2. Bar-Sagi D., and Hall A. (2000) *Cell* **103**: 227-38.
3. Benard, V., Bohl, B. P., and Bokoch, G. M. (1999) *J. Biol. Chem.* **274**, 13198-13204.

Warranty

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