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Product Description

Product Name: Rac1 Protein

Synonyms: Ras-related C3 botulinum toxin substrate 1, Rac-1, p21-Rac1, MIG5, TC-25

Catalogue Number: 10101

Source: Human, recombinant full length, His₆-tag

Expression Host: E. coli

Molecular Weight: 21 kDa

Purity: >98% by SDS-PAGE

Introduction: Small GTPases are a super-family of cellular signaling regulators. Rac belongs to the Rho sub-family of GTPases that regulate cell motility, cell division, and gene transcription. GTP binding increases the activity of Rac, and the hydrolysis of GTP to GDP renders it inactive. GTP hydrolysis is aided by GTPase activating proteins (GAPs), while exchange of GDP for GTP is facilitated by guanine nucleotide exchange factors (GEFs).

Amino Acid Sequence (1-192)

MQAIKCVVVG DGA VGK TCLLISYTTNAFPGEYIPTVFD
NYSANVMVDGKPVNLGLWDTAGQEDYDLRPLSYPQTD
VFLICFSLVSPASFENVR AKWYPEVRHHCNTP IILVG
TKL DLRDDKDTIEKLKEK KLTPI TYPQGLAMAKEIGAV
KYLECSALTQRGLKTVFDEAIRAVLCPPPVKRRKRCLL
LL

Properties

Physical Appearance (form): Dissolved in 20mM Tris-HCl, pH8.0, 150mM NaCl.

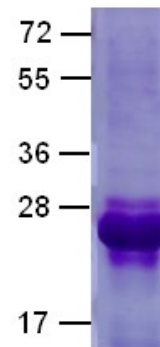
Physical Appearance (form): White or clear

Concentration: 1 mg/mL

Storage: -80°C

Preparation Instructions

Adding of 10 mM β -mercaptoethanol or 1 mM DTT into the solution to protect the protein is recommended and using of non-ionic detergents such as n-Dodecyl β -D-maltoside (DoDM) or polyethylene detergents (e.g. C₁₂E₁₀) also help to stabilize the protein. Avoid repeated freezing and thawing.



The purity of His-tagged Rac1 was determined by SDS-PAGE and Coomassie Brilliant Blue Staining.

References

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6. Moore, K. A. et al., Biochem. J. 326: 17-20, 1997.
7. Walmsley, M. J. et al., Science 302: 459-462, 2003.
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