

Recombinant Human RAC1, GST-tagged

Cat. No. RAC1-7034H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human RAC1 was expressed in E. coli cells using an N-terminal GST tag.
Species	Human
Source	E.coli
ProteinLength	Full length
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. 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 tumour growth in xenografts of human colorectal tumour cells. RAC1 is also involved in the regulation of critical cellular functions including organization of actin cytoskeleton, transcription control and cell cycle.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Molecular Mass	~47 kDa
Purity	>95%

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Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.2 µg/µl
GENE INFORMATION	
Gene Name	RAC1 ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) [Homo sapiens]
Official Symbol	RAC1
Synonyms	RAC1; ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1); ras-related C3 botulinum toxin substrate 1; p21 Rac1; Rac 1; TC 25; ras-like protein TC25; cell migration-inducing gene 5 protein; MIG5; Rac-1; TC-25; p21-Rac1; MGC111543;
Gene ID	5879
mRNA Refseq	NM_006908
Protein Refseq	NP_008839
MIM	602048
UniProt ID	P63000
Chromosome Location	7p22

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Pathway

Activation of Rac, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem;

Function

GTP binding; GTPase activity; enzyme binding; nucleotide binding; protein binding; thioesterase binding;

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