

Active Recombinant Human RAC1 T17N, GST-tagged

Cat. No. RAC1-192H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Rac1(T17N), fused with N-terminus GST-tag, was expressed in a bacterial expression system. The dominant negative form of the Rac1 protein contains a threonine to asparagine substitution at residue 17.
Species	Human
Source	E.coli
Description	The protein encoded by this gene is a GTPase which belongs to the RAS superfamily of small GTP-binding proteins. Members of this superfamily appear to regulate a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases. Two transcript variants encoding different isoforms have been found for this gene.
Form	The protein is supplied as a lyophilized powder.
Bio-activity	Activity of Rac1(T17N) was verified by the ability of the protein to inhibit GEF activation of wild type Rac1 in an in vitro GEF assay.
Molecular Mass	The recombinant protein is 50 kDa consisting of the Rac1 protein (22 kDa) and a 28 kDa GST tag.
Purity	Samples are >90% pure
Storage	Stable at 4°C for 1 year as a lyophilized powder. Once reconstituted as a 1 mg/ml

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solution the protein can be stored at -70°C for 6-8 months. For frozen storage we recommend that the protein be supplemented with DTT to 1 mM final concentration, aliquoted into “experiment sized” amounts and snap frozen in liquid nitrogen. We do not recommend freeze thawing of the proteins.

Reconstitution

When it is reconstituted in distilled water to 1 mg/ml, the protein is in the following buffer: 2 mM Tris pH 7.6, 0.5 mM MgCl₂, 0.5% sucrose, 0.1% dextran.

GENE INFORMATION
Gene Name

RAC1 ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) [Homo sapiens (human)]

Official Symbol

RAC1

Synonyms

RAC1; MGC111543; MIG5; TC-25; PAK1; TC25; P21-RAC1; RAC-1; p21-Rac1; Ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1); RAS-like protein; Ras-related C3 botulinum toxin substrate 1; rho family; small GTP binding protein Rac1; Ras-related C3 botulinum toxin substrate 1; Cell migration-inducing gene 5 protein; Ras-like protein TC25; migration-inducing gene 5; migration-inducing protein 5; ras-related C3 botulinum toxin substrate 1; ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1); ras-related C3 botulinum toxin substrate 1 isoform Rac1; ras-related C3 botulinum toxin substrate 1 isoform Rac1b; rho family, small GTP binding protein Rac1

Gene ID

5879

mRNA Refseq

NM_006908

Protein Refseq

NP_008839

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MIM	602048
UniProt ID	P63000
Chromosome Location	7p22
Pathway	Adaptive Immune System; Alpha6-Beta4 Integrin Signaling Pathway; Angiopoietin receptor Tie2-mediated signaling
Function	GTP binding; GTP-dependent protein binding; Rho GDP-dissociation inhibitor binding; enzyme binding

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