

Recombinant Human RAC1(Q61L), His-tagged

Cat. No. RAC1-191H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human RAC1(Q61L), fused with N-terminus His-tagged, was expressed in a bacterial system. The leucine substitution prevents endogenous and GAP-stimulated GTPase activity of Rac1, hence the protein is always in the active, GTP-bound, state.
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.
Molecular Mass	The recombinant protein is 25 kDa, consisting of the 22 kDa Rac1 constitutively active protein plus a histidine tag in the amino-terminus.
Purity	>90% pure by SDS-PAGE
Storage	The protein must not be exposed to repeated freeze-thaw cycles. The lyophilized protein is stable at 4°C desiccated (<10% humidity) for six months.

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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 and 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](#)

MIM

[602048](#)

UniProt ID

P63000

Chromosome

7p22

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Location	
Pathway	Adherens junction; Amyotrophic lateral sclerosis (ALS); Androgen receptor signaling pathway
Function	GTP binding; GTP-dependent protein binding; Rho GDP-dissociation inhibitor binding

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