

RAC2 recombinant protein

RAC2 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA258006

HOST
E Coli

PRODUCT SYNONYMS

RAC2; RAC2 Protein; Human; Recombinant (His Tag); Human RAC2 Protein (His Tag); EN-7 Protein; Gx Protein; HSPC022 Protein; p21-Rac2 Protein; ras-related C3 botulinum toxin substrate 2 (rho family; small GTP binding protein Rac2); RAC2 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	>94% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, 20% glycerol, pH 7.4, 5% Trehalose, 5% mannitol, 0.01% Tween-80
Sequence	Met1-Cys18 9
Source	Human
Predicted N Terminal	Met
Tag	His Tag
Protein Construction	A DNA sequence encoding the human RAC2 (P15153)(Met 1-Cys 189) was expressed, with a polyhistidine tag at the N-terminus.
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV-Vis.
Preparation and Storage	Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycle. Stability: Samples are stable for up to twelve months from date of receipt at -70 °C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for RAC2 recombinant protein

Background: Ras-related C3 botulinum toxin substrate 2 (Rac2) is a small G-protein belonging to the Ras subfamily of the GTPase family. Rac2 acts as an "on/off" switch for signal transduction cascades and motilities. When GDP is attached to the small G-protein, the enzyme is inactivated. Release of the GDP and replace of the GTP cativate the GTPasee. Rac2 remains active until the GTP is hydrolyzed to GDP. Rac2 is a hematopoietic-specific Rho family GTPase implicated as an important constituent of the NADPH oxidase complex and shares 92% amino acid identity with the ubiquitously expressed Rac1. The small G-protein Rac2 regulates the rearrangements of actin and membrane necessary for Fcy receptor-mediated phagocytosis by macrophages. Activated Rac2 binds to the p21-binding domain of PAK1 and this binding provided a basis for microscopic methods to localize activation of these G proteins inside cells.

Product Categories/Family for RAC2 recombinant protein	TGF-beta Signaling
References	Adam D, et al. (2003) Cdc42, Rac1, and Rac2 Display Distinct Patterns of Activation during Phagocytosis. Mol Biol Cell. 15 (8): 3509-19. Walmsley MJ, et al. (2003) Critical Roles for Rac1 and Rac2 GTPases in B Cell Development and Signaling. Science. 302 (5644): 459-62. Holland M, et al. (2011) RAC2, AEP, and ICAM1 expression are associated with CNS disease in a mouse model of pre-B childhood acute lymphoblastic leukemia. Blood. 118 (3): 638-49.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506381
NCBI GeneID	5880
NCBI Accession #	NP_002863.1
NCBI GenBank Nucleotide #	NM_002872.4
UniProt Accession #	P15153 ; Q9UDJ4 ; AAB22207
Molecular Weight	Molecular Mass: The recombinant human RAC2 comprises 200 amino acids and has a predicted molecular mass of 22.6 kDa. It migrates as an approximately 25 kDa band in SDS-PAGE under reducing conditions.
NCBI Official Full Name	ras-related C3 botulinum toxin substrate 2
NCBI Official Synonym Full Names	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2)
NCBI Official Symbol	RAC2
NCBI Official Synonym Symbols	Gx; EN-7; HSPC022; p21-Rac2
NCBI Protein Information	ras-related C3 botulinum toxin substrate 2; small G protein; Ras-related C3 botulinum toxin substrate 3 (rho family, small GTP-binding protein Rac2)
UniProt Protein Name	Ras-related C3 botulinum toxin substrate 2
UniProt Gene Name	RAC2
UniProt Entry Name	RAC2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rac2-recombinant-protein-e-coli/258006>