Recombinant Human Rac2 protein (His Tag)

Catalog Number: PDEH100997

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Human		
Source	E.coli-derived Human Rac2 protein Met1-Cys189, with an N-terminal His & C-terminal		
	His		
Calculated MW	20.7 kDa		
Observed MW	25 kDa		
Accession	P15153		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95% as determined by reducing SDS-PAGE.		
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method		
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with 5% Trehalose and 5%		
	Mannitol.		
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of		
	0.5 mg/mL. Concentration is measured by UV-Vis.		

Data

KDa	М	R
135 100		
75	-	
65		
45		
35		
25		-
15		-

> 95 % as determined by reducing SDS-PAGE.

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.

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