

Human RhoA Protein (His Tag)

Catalog Number: 12441-H07B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ARH12; ARHA; RHO12; RHOH12

Protein Construction:

A DNA sequence encoding the human RHOA (P61586-1) (Met 1-Leu 193) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human RHOA consists of 212 amino acids and has a calculated molecular mass of 24 kDa. It migrates as an approximately 28 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

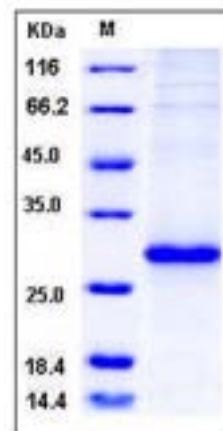
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Transforming protein RhoA, also known as Rho cDNA clone 12, Ras homolog gene family member A, RHOA and ARH12, is a cell membrane and cytoplasm protein which belongs to the small GTPase superfamily and Rho family. The Rho family of small GTPases plays a key role in the dynamic regulation of the actin cytoskeleton that underlies various important cellular functions such as shape changes, migration, and polarity. RHOA / ARH12 is part of a larger family of related proteins known as the Ras superfamily; proteins involved in the regulation and timing of cell division. RHOA / ARH12 is a small GTPase protein known to regulate the actin cytoskeleton in the formation of stress fibers. It acts upon two known effector proteins: ROCK1 (Rho-associated, coiled-coil containing protein kinase 1) and DIAPH1 (diaphanous homolog 1 (Drosophila)). RHOA / ARH12 regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. RHOA / ARH12 serves as a target for the yopT cysteine peptidase from Yersinia pestis, vector of the plague, and Yersinia pseudotuberculosis, which causes gastrointestinal disorders. RHOA / ARH12 may be an activator of PLCε1. It is activated by ARHGEF2, which promotes the exchange of GDP for GTP.

References

1. Kiss C, et al., 1997, Cytogenet. Cell Genet. 79 (3-4): 228-30.
2. Anastasiadis, P.Z. et al., 2000, Nat Cell Biol. 2 (9): 637-44.
3. Yiu G, et al., 2006, Nat. Rev. Neurosci. 7 (8): 617-27.

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