

**Recombinant Human RhoA Protein (His tag)**

**Cat.NO.: TP08602**

3th Edition

**Synonyms:** ARH12; ARHA; RHO12; RHOH12

**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 PLCE1. It is activated by ARHGEF2, which promotes the exchange of GDP for GTP.

**Form:** PBS

**Molecular Weight:** 24 kDa

**Sequences:** Met 1-Leu 193

**Purity:** > 95% by HPLC

**Concentration:**

**Endotoxin Level:** <1.0 EU per 1 µg of protein (determined by LAL method)

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.