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Product Information

RhoD, His-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5129**
Storage Temperature –70 °C

Synonyms: Rho, RHOHP1, RHOM

Product Description

RhoD is a member of the Rho gene family that interacts with protein kinases and serves as a target of activated GTPase. Rho binds GTP and plays a critical role in muscle differentiation by regulating the expression of myogenin and MEF2 genes. Furthermore, Rho is involved in endosome dynamics and reorganization of the actin cytoskeleton, and plays a role in coordinating membrane transport.[1] mDia and ROCK are down-stream effectors of Rho mediating Rho action on the actin cytoskeleton; mDia produces actin filaments by nucleation and polymerization, and ROCK activates myosin to crosslink them for induction of actomyosin bundles and contractility.[2]

Recombinant, full-length, human RhoD was expressed in *E. coli* cells using an N-terminal His tag. The gene accession number is BC001338. Recombinant protein stored in 50 mM MOPS, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass: ~22 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

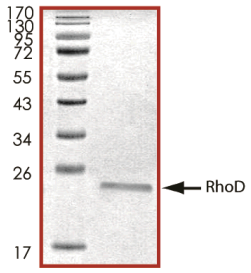
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Gasman, S. et al., RhoD regulates endosome dynamics through Diaphanous-related Formin and Src tyrosine kinase. Nature Cell Biol., **5**, 195-204 (2003).
2. Narumiya, S. et al., Rho signaling, ROCK and mDia1, in transformation, metastasis and invasion. Cancer Metastasis Rev., **28**(1-2), 65-76 (2009).

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