LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ARL4A Protein
Catalog Number: hRP-0841
Manufacturer: LD Biopharma, Inc.

Introduction

Human ADP-ribosylation factor-like 4A (ARL4A) protein is a member of the ADP-ribosylation factor family of GTP-binding proteins. ARL4A is similar to ARL4C and ARL4D and each has a nuclear localization signal and an unusually high guaninine nucleotide exchange rate. ARL4A is located in both the nuclear and extra-nuclear cell compartments. Multiple transcript variants encoding the same protein have been found for this gene. Recent data indicated that ARL4A plays a important role in ELMO-DOCK1800-Rac signaling pathway.

Full-length human ARL4A (200 aa) gene was constructed with 15 aa N-terminal T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	ARL4A
Accession Number:	NP_005729
Species:	Human
Size:	50 µg / Vial
Composition:	0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Lin,Y.C., et al., *ARL4A acts with GCC185 to modulate Golgi complex organization*. J. Cell. Sci. 124 (PT 23), 4014-4026 (2011)

Patel,M., et al., *The Arf family GTPase Arl4A complexes with ELMO proteins to promote actin cytoskeleton remodeling and reveals a versatile Ras-binding domain in the ELMO proteins*

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family. J. Biol. Chem. 286 (45), 38969-38979 (2011)

Chi,J.H., et al., *Increased expression of the glioma-associated antigen ARF4L after loss of the tumor suppressor PTEN. Laboratory investigation*. J. Neurosurg. 108 (2), 299-303 (2008).

Applications

1. May be used for in vitro actin cytoskeleton remodeling regulation study with intracellular delivery of this protein.
2. As soluble / native protein, may be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping ARL4A protein-protein interaction.
4. Potential diagnostic biomarker for monitoring Akt/TOR pathway activity for various cancer.
5. May be used as antigen for specific antibody development.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFMGNGLSDQTSILSNLPSFQSFHIVILGLDCAGKTTVLYRLQFNEFVNTV
PTKGFNTEKIKVTLGNSKTVTFHFWDVGGQEKLRPLWKSYTRCTDGIVFVVDSVDVERMEEAKT
ELHKITRISENQGVPVLIVANKQDLRNSLSLSEIEKLLAMGELSSSTPWHLQPTCAIIGDGLKE
GLEKLHDMIIKRRKMLRQQKKKR