



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human RAB14 Protein  
**Catalog Number:** hRP-0825  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human RAB14, member RAS oncogene family, belongs to the large RAB family of low molecular mass GTPases that are involved in intracellular membrane trafficking. These proteins act as molecular switches that flip between an inactive GDP-bound state and an active GTP-bound state in which they recruit downstream effector proteins onto membranes. Recent data indicated that RAB14 activities might be involved in smallpox vaccine cytokine responses and lung small cell cancer development.

Full-length human RAB14 (215aa) 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:** RAB14 (FBP)  
**Accession Number:** NP\_057406  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Linford,A., et al., *Rab14 and its exchange factor FAM116 link endocytic recycling and adherens junction stability in migrating cells* Dev. Cell 22 (5), 952-966 (2012)

Wang,R., et al., *MicroRNA-451 functions as a tumor suppressor in human non-small cell lung cancer by targeting ras-related protein 14 (RAB14)*. Oncogene 30 (23), 2644-2658 (2011)



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## **Applications**

1. May be used for in vitro GTPases related intracellular membrane trafficking regulation study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping RAB14 protein-protein interaction assay.
4. As antigen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFMATAPYNYSYIFKYIIIGDMGVGKSCLLHQFTEKKFMADCPHTIGVEFG  
TRIIIEVSGQKIKLQIWDTAGQERFRAVTRSYRGAAGALMVYDITRRSTYNHLSSWLT DARNLT  
NPNTVILIGNKADLEAQRDVTYEEAKQFAEENGLLFLEASAKTGENVEDAFLEAAKKIYQNIQ  
DGSLLNAAESGVQHKPSAPQGGRLTSEPQPQREGCGC