LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
http://www.ldbiopharma.com

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CAPZA1 Protein
Catalog Number: hRP-0484
Manufacturer: LD Biopharma, Inc.

Introduction

Human F-actin-capping protein subunit alpha-1 (CAPZA1) is a member of the F-actin capping protein alpha subunit family. This gene encodes the alpha subunit of the barbed-end actin binding protein. The protein regulates growth of the actin filament by capping the barbed end of growing actin filaments. Recent data has indicated that CAPZA1 protein over-expression in human melanoma.

Full length human CAPZA1 gene was constructed with N-terminal 15 aa (T7) tag. This protein was expressed in E. coli as inclusion bodies, refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	CAPZA1 (CAPPA1; CAPZ; CAZ1)
Accession Number:	NP_006126
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, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Sun,D., et al., *Differential expression patterns of capping protein, protein phosphatase 1, and casein kinase 1 may serve as diagnostic markers for malignant melanoma.* Melanoma Res. 21 (4), 335-343 (2011)

LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
http://www.ldbiopharma.com

Mahoney,D.J., et al., *Gene expression profiling in human skeletal muscle during recovery from eccentric exercise*. Am. J. Physiol. Regul. Integr. Comp. Physiol. 294 (6), R1901-R1910 (2008)

Derivery,E., et al. *The Arp2/3 activator WASH controls the fission of endosomes through a large multiprotein complex*. Dev. Cell 17 (5), 712-723 (2009)

Applications

1. May be used for human F actin assembling regulation study in vitro,
2. May be used as specific substrate protein for kinase and ubiquitin enzymes.
3. May be used as cancer biomarker for diagnosis application development, such as melanoma.

Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

Recombinant Protein Sequence

MASMTGGQQMGRGEFADFDDRVSDEEKVRIAAKFITHAPPGEFNEVFNDVRLLLNNDNLLREGA
AHAFAQYNMDQFTPVKIEGYEDQVLITEHGDLGNSRFLDPRNKISFKFDHLRKEASDPQPEEAD
GGLKSWRESCDSALRAYVKDHYSNGFCTVYAKTIDGQQTIIACIESHQFQPKNFWNGRWRSEWK
FTITPPTAQVVGVLKIQVHYYEDGNVQLVSHKDVQDSLTVSNEAQTAKEFIKIIENAENEYQTA
ISENYQTMSDTTFKALRRQLPVTRTKIDWNKILSYKIGKEMQNA