



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 ANKRD1 Protein
Catalog Number: hRP-1302
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human ankyrin repeat domain-containing protein 1 (ANKRD1) gene is localized to the nucleus of endothelial cells and is induced by IL-1 and TNF-alpha stimulation. Studies in rat cardiomyocytes suggest that this gene functions as a transcription factor. Interactions between this protein and the sarcomeric proteins myopalladin and titin suggest that it may also be involved in the myofibrillar stretch-sensor system. Recent data also indicated that induction of ANKRD1 seems to be corrected with apoptotic cell death in hepatoma cells.

Full-length human ANKRD1 cDNA (2–319 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (31aa) fusion at its N-terminal. This protein is 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: ANKRD1 (ALRP; bA320F15.2; C-193; CARP; CVARP)
Accession Number: NP_055206
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 Sucrose.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Crocini C, et al., *Impact of ANKRD1 mutations associated with hypertrophic cardiomyopathy on contraction parameters of engineered heart tissue*. Basic Res. Cardiol. 108



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

(3), 349 (2013)

Samaras SE, et al., *26S proteasome regulation of Ankrd1/CARP in adult rat ventricular myocytes and human microvascular endothelial cells*. Biochem. Biophys. Res. Commun. 425 (4), 830-835 (2012)

Mohamed JS et al., *Loss of desmin triggers mechanosensitivity and up-regulation of Ankrd1 expression through Akt-NF-kappaB signaling pathway in smooth muscle cells*. FASEB J. 26 (2), 757-765 (2012)

Applications

1. May be used for in vitro ANKRD1 mediated DNA transcription regulation for endothelial cell activation study with “ProFectin” based intracellular delivery of this protein.
2. May be used for ANKRD1 protein – protein interaction assay.
3. Potential diagnostic biomarker protein.
4. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFMVLKVEELVTGKKNGNGEAGEFLPEDFRDGEYEEAA
VTLEKQEDLKTLLAHPVTLGEEQQWKSEKQREAEKKKKLEQRSKLENLEDLEII I IQLKKRKKYR
KTKVPVVKEPEPEI I ITEPVDVPTFLKAALENKLPVVEKFLSDKNNPDVCDEYKRTALHRACLEG
HLAIVEKLMEEAGAQIEFRDMLESTAIHWASRGNLDVLLKLLLNKGAKI SARDKLLSTALHVAVR
TGHYCAEHLIACEADLNAKDREGDTPLHDAVRLNRYKMIRLLIMYGADLNKNCAGKTPMDLV
LHWQNGTKAIFDSLRENSYKTSRIATF