



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ADI1 Protein
Catalog Number: hRP-0718
Manufacturer: LD Biopharma, Inc.

Introduction

Human 1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase (ADI1) gene encodes an enzyme that belongs to the aci-reductone dioxygenase family of metal-binding enzymes, which are involved in methionine salvage. This enzyme may regulate mRNA processing in the nucleus, and may carry out different functions depending on its localization. Recent data indicated that ADI1 binds and inhibits the activities of membrane-type 1 matrix metalloproteinase, a protein known to interact with the tight junction protein, claudin-1. Work with CD81, ADI1 has been shown for enhancing HCV infectivity in 293cells in vitro.

Full-length human ADI1 gene (179aa, Isoform-1) was constructed with 15 N-terminal T7 tag and expressed in E.coli as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: ADI1 (APL1; ARD; Fe-ARD; HMFT1638; MTCBP1;mtnD)
Accession Number: NP_060739
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 -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Gotoh,I., et al., *Regulated nucleo-cytoplasmic shuttling of human aci-reductone dioxygenase (hADI1) and its potential role in mRNA processing.* Genes Cells 12 (1), 105-117 (2007)



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Cheng, J.C., et al., *293 cells over-expressing human ADI1 and CD81 are permissive for serum-derived hepatitis C virus infection*. J. Med. Virol. 81 (9), 1560-1568 (2009)

Applications

1. May be used for in vitro ADI1 mediated mRNA processing pathway regulation or co-receptor activities for various cells study by intracellular delivery of this protein with "ProFectin" reagent.
2. May be used for mapping ADI1 protein-protein interaction.
3. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein for monitoring prostate cancer progression.
5. May be used as antigen for specific antibody production.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFVQAWYMDDAPGDPRQPHRPDPGRPVGLEQLRRLGVLYWKLDADKYENDP
ELEKIRRERNYSWMDIITICKDKLPNYEEKIKMFYEEHLHLDDEIRYILDGSGYFDVRDKEDQW
IRIFMEKGDVMTLPAGIYHRFTVDEKNYTKAMRLFVGEPVWTAYNRPADHFEARGQYVKFLAQT
A