



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ACAT2 Protein
Catalog Number: hRP-0723
Manufacturer: LD Biopharma, Inc.

Introduction

Human acetyl-CoA acetyltransferase, cytosolic (ACAT2) gene encodes a thiolase enzyme involved in lipid metabolism. Recent data indicated that this enzyme activity is related to the progression of AIDS and various risk of dementia.

Full-length human ACAT2 gene was constructed with 17 N-terminal 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: ACAT2
Accession Number: NP_005882
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

Ruano,G., et al., *Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol?* Pharmacogenomics 11 (7), 959-971 (2010)

Katsuren,K., et al., *Effects of a new single-nucleotide polymorphism in the Acyl-CoA:cholesterol acyltransferase-2 gene on plasma lipids and apolipoproteins in patients with hyperlipidemia.* J. Atheroscler. Thromb. 10 (1), 32-36 (2003)



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Bennett, M.J., et al., *Biochemical investigations on a patient with a defect in cytosolic acetoacetyl-CoA thiolase, associated with mental retardation*. J. Inherit. Metab. Dis. 7 (3), 125-128 (1984)

Applications

1. May be used for cell lipid metabolic pathway regulation study in vitro using recombinant ACAT2 protein intracellular delivery methods.
2. May be used for in vitro protein-protein interaction measurement for mapping ACAT2 binder.
3. Excellent lysine acetylation subtract protein for enzymatic assay development,
4. May be used as antigen for specific antibody development.

Quality Control

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

Recombinant Protein Sequence

MASMTGGQQMGRGEFGSNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVA
PEDVSEVIFGHVLAAGCGQNPVRQASVGAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSS
IVVAGGMENMSKAPHLAYLRTGVKIGEMPLTDSILCDGLTDAFHNCHMGITAENVAKKWQVSRE
DQDKVAVLSQNRTEAQAQKAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHGSNIEAMSKLKPYPFLT
DGTGTVTPANASGINDGAAAVVLMKKSEADKRGLTPLARIVSWSQVGVEPSIMGIGPIPAIKQA
VTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRILVTLLH
TLERMGRSRGVAALCIGGGMGIAMCVQRE