



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human FNDC5 Protein
Catalog Number: hRP-0532
Manufacturer: LD Biopharma, Inc.

Introduction

Extracellular matrix protein fibronectin (FN) plays an important role in cell adhesion. FN contains FN type I, II and III domains. The FN III repeat is generally about 90 amino acids long and to be composed of seven β -strands, forming two antiparallel β -sheets. FN III domain derived proteins have been demonstrated to bind various proteins with high affinity. Human fibronectin type III domain-containing protein 5 (FNDC5, also named as Irisin) mRNA was highly enriched in human brain tissue, but highly enriched in human deltoid muscle tissue. Recently, FNDC5 function was demonstrated to be a key player in regulation of brown fat cell differentiation after its extracellular domain (Irisin) is cleaved and released from the cell membrane.

Full-length extracellular domain of human FNDC5 cDNA (15 - 127aa) was constructed by fully synthetic gene synthesis with codon optimization. This protein was expressed as non-fusion protein in *E. coli* as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: FNDC5 (Irisin; FRCP2)
Accession Number: Q8NAU1
Species: Human
Size: 50 μ g / 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 Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 15 days.

Key References



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Teufel, A., et al. *Frcp1 and Frcp2, two novel fibronectin type III repeat containing genes.* Gene 297 (1-2), 79-83 (2002)

Pontus Bostrom, et al., *A PGC1- α -dependent myokine that drives brown-fat-like development of white fat and thermogenesis.* Nature; doi:10.1038/nature10777. (2012).

Applications

1. May be used for in vitro human brown fat cell differentiation regulation study.
2. May be used for in vitro protein-protein interaction mapping.
3. May be used as antigen for specific antibody production.

Quality Control

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

Recombinant Protein Sequence

MDSPSAPVNVTVRHLKANSVVSWDVLDEDEVVIGFAISQQKKDVRMLRFIQEVNTTTRSCALWD
LEEDTEYIVHVQAIISIQQSPASEPVLFKTPREAEEKMASKNKDEVTMKE