

Product Specification Sheet

Mouse Uncoupling Protein 1 (UCP1)

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| <input type="checkbox"/> Cat. UCP15-R-10 | Recombinant purified Mouse UCP1 protein | SIZE: 10 ug |
| <input type="checkbox"/> Cat. UCP15-R-50 | Recombinant purified Mouse UCP1 protein | SIZE: 50 ug |

The regulation of body weight depends upon the calorie intake and expenditure. White and brown adipose tissues (BAT and WAT, respectively) play a central role in body weight and energy expenditure. WAT is the major site for energy storage via triglyceride synthesis and mobilization via lipolysis. **Uncoupling proteins (UCP1-5)** are a family of mitochondria transport proteins that play a critical role in thermoregulatory heat production and maintenance of basal metabolic rate. BAT is able to dissipate energy as heat via uncoupled mitochondrial respiration by a mitochondrial anion carrier, uncoupling protein 1 (UCP1). UCP1 is predicted to contain 6 trans-membrane (TM) domains, a putative purine nucleotide-binding domain (PNBD) and three-mitochondrial energy transfer protein domains (ETPDs). Both amino and C-termini are predicted to be cytoplasmic. Mouse/rat UCP1 is A 307 AA mitochondrial uncoupling protein (1). It is only 59% homologous with UCP2 (2). UCP1 is primarily expressed in brown adipose tissues.

Source of Antigen and Antibodies

Mouse UCP1 protein (full length; gene accession # NM_009463) was expressed as fusion protein (His tag- UCP1) in E.coli and purified (>95% with major band at ~33kDa). Purified Mouse UCP1 protein is supplied in 50mM Tris-HCl, pH 8.0, 250mM NaCl, 1.5% sodium lauroyl Sarcosine, 1mM EDTA, 10mM beta-mercapto-ethanol at a conc. of 1mg/ml (lot specific conc. is provided on the vial). Store at -20°C or below. Avoid frequent freeze and thaw.

Recommended Usage

Western Blotting & ELISA

General References: (1) Kozak LP (1988) JBC 263, 12274; Bouillaud F (1986) JBC 261, 1487; Ridley RG (1986) Nucl. Acid Res. 14, 4025; Miroux B (1993); EMBO J 12, 3739; Cassard AM et al (1990) JCB 43, 255; (2) Fleury C (1997) Nature Genetics 15, 269;

(2) Citations of ADI's Antibodies (see web site for updated list)

Mulligan, 2007, J Physiology, 580, 677-684, Apr 2007; Jonathan B, 2007, PNAS.; 104: 5680 – 5685; Rodriguez E, 2001, Eur. J. Physiology 442, 396-403; Ryu J-W, 2003, BBRC 303, 726-731; Nibelink M, 2001, J. Biol. Chem. 276, 47295; Klein J, 2004, J. Endocrinol., 183: 299 – 307; Lee S-H, 2004, J. Lipid Res., 45, 1674-1682; Justo R, 2005, Life Sciences, 76, 1147-1158; See more refs at the web site.

Related Items

Catalog#	ProdDescription
UCP11-A	Anti-Mouse Uncoupling Protein 1 (UCP1) IgG # 1, aff pure
UCP11-P	Mouse Uncoupling Protein 1 (UCP1) Control/blocking peptide # 1
UCP12-A	Anti-Mouse Uncoupling Protein 1 (UCP1) IgG #2, aff pure
UCP12-C	Recombinant purified Mouse Uncoupling Protein 1 (UCP1, full length, His tag) WB +ve control
UCP12-P	Mouse Uncoupling Protein 1 (UCP1) Control/blocking peptide # 2
UCP13-C	Recombinant purified Human Uncoupling Protein 1 (UCP1, full length, His tag) WB +ve control
UCP15-R-10	Recombinant purified Mouse Uncoupling Protein 1 (UCP1) (full length, His-tag)
UCP16-R-10	Recombinant purified Human Uncoupling Protein 1 (UCP1) (full length, His-tag)
UCP21-A	Anti-Mouse Uncoupling Protein 2 (UCP2) IgG # 1, aff pure
UCP21-P	Mouse Uncoupling Protein 2 (UCP2) Control/blocking peptide #1
UCP21-S	Anti-Mouse Uncoupling Protein 2 (UCP2) antiserum # 1
UCP22-A	Anti-Mouse Uncoupling Protein 2 (UCP2) IgG # 2, aff pure
UCP22-C	Recombinant purified Mouse Uncoupling Protein 2 (UCP2) (full length, His-tag) WB +ve control
UCP22-P	Mouse Uncoupling Protein 2 (UCP2) Control/blocking peptide #2
UCP23-A	Anti-Human Uncoupling Protein 2 (UCP2) IgG # 3, aff pure
UCP23-C	Recombinant purified Human Uncoupling Protein 2 (UCP2) (full length, His-tag) WB +ve control
UCP23-P	Human Uncoupling Protein 2 (UCP2) Control/blocking peptide #3
UCP23-S	Anti-Human Uncoupling Protein 2 (UCP2) antiserum # 3
UCP25-R-10	Recombinant purified Mouse Uncoupling Protein 2 (UCP2) (full length, His-tag)
UCP26-R-10	Recombinant purified Human Uncoupling Protein 2 (UCP2) (full length, His-tag)
UCP31-A	Anti-Human Uncoupling Protein 3 (UCP3) IgG # 1, aff pure
UCP31-P	Human Uncoupling Protein 3 (UCP3) Control/blocking peptide #1
UCP32-A	Anti-Human Uncoupling Protein 3 (UCP3) IgG # 2, aff pure
UCP32-P	Human Uncoupling Protein 3 (UCP3) Control/blocking peptide #2
UCP33-A	Anti-Rat Uncoupling Protein 3 (UCP3) IgG # 3, aff pure
UCP33-P	Rat Uncoupling Protein 3 (UCP3) Control/blocking peptide #3
UCP34-A	Anti-Human Uncoupling Protein 3 (UCP3) IgG # 4, aff pure
UCP34-P	Human Uncoupling Protein 3 (UCP3) Control/blocking peptide #4
UCP35-C	Recombinant purified Mouse Uncoupling Protein 3 (UCP3) (full length, His-tag) WB +ve control
UCP35-R-10	Recombinant purified Mouse Uncoupling Protein 3 (UCP3) (full length, His-tag)
UCP36-C	Recombinant purified Human Uncoupling Protein 3 (UCP3) (full length, His-tag) WB +ve control
UCP36-R-10	Recombinant purified Human Uncoupling Protein 3 (UCP3) (full length, His-tag)
UCP41-A	Anti-Human Uncoupling Protein 4 (UCP4) IgG # 1, aff pure
UCP41-P	Human Uncoupling Protein 4 (UCP4) Control/blocking peptide #1
UCP42-A	Anti-Rat Uncoupling Protein 4 (UCP4) IgG # 2, aff pure
UCP42-P	Rat Uncoupling Protein 4 (UCP4) Control/blocking peptide #2
UCP51-A	Anti-Rat Uncoupling Protein 5 (UCP5) IgG #1, aff pure
UCP51-P	Rat Uncoupling Protein 5 (UCP5) Control/blocking peptide #1
UCP52-A	Anti-Human Uncoupling Protein 5 (UCP5) IgG #2, aff pure
UCP52-P	Human Uncoupling Protein 5 (UCP5) Control/blocking peptide #2
UCP55-C	Recombinant purified Mouse Uncoupling Protein 5 (UCP5) (full length, His-tag) WB +ve control
UCP55-R-10	Recombinant purified Mouse Uncoupling Protein 5 (UCP5) (full length, His-tag)
UCP55-R-50	Recombinant purified Mouse Uncoupling Protein 5 (UCP5) (full length, His-tag)
UCP56-C	Recombinant purified Human Uncoupling Protein 5 (UCP5) (full length, His-tag) WB +ve control
UCP56-R-10	Recombinant purified Human Uncoupling Protein 5 (UCP5) (full length, His-tag)
UCP56-R-50	Recombinant purified Human Uncoupling Protein 5 (UCP5) (full length, His-tag)

UCP15-R-10-50

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