

Product Specification Sheet

Mouse Uncoupling Protein 3 (UCP3) Antibodies

<input type="checkbox"/> Cat. UCP35-R-10	Recombinant purified Mouse UCP3 protein	SIZE: 10 ug
<input type="checkbox"/> Cat. UCP35-R-50	Recombinant purified Mouse UCP3 protein	SIZE: 50 ug

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. Human **UCP3** long form (UCP3L) is a 312 aa mitochondrial uncoupling protein (1, 2). It is only 57% and 73% homologous with human UCP1 and UCP2 respectively. Like other UCPs, UCP3 is predicted to contain 6 transmembrane domains. The UCP3S lacks the 6th transmembrane domain and it is only 275 aa long (2). UCP3 has preferential expression in muscle and it is unaffected by cold acclimation.

Source of Antigen and Antibodies

Mouse UCP3 protein (full length; gene accession # AB010742) was expressed as fusion protein (His tag- UCP3) in E. coli and purified (>95% with major band at ~34kDa). Purified Mouse UCP3 protein is supplied in 10mM Tris-HCl, pH 8.0, 50mM NaH₂PO₄ and 8M urea 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

For Western load, 50-200 ng protein per lane and probe with appropriate antibodies.
For ELISA, coat at 0.2-2 ug/ml.

General References: (1) Boss, O et al (1997) FEBS Lett. 408, 39-42; (2) Vidal-Puig A et al (1997) BBRC 235, 79-82.

Citations of for UCP3(see updated list at the web site)
Gustafsson H, 2004, J. Neurochemistry 88, 2, 462-468.; Guillet-Deniau I, 2002, Diabetes 51: 1722-1728; Marcinek DJ, 2005, The Journal of Physiol. 569, 467-473, ; Jucker BM, 2000, Proc. Natl. Acad. Sci. 97: 6880-6884; Murray AJ, 2004, The Lancet, 364, 9447, 1786-1788; Gerber LK, 2006, Am J Physiol Cell Physiol, 291: C1198 - C1207; see more refs at the web site.

*This product is for in vitro research use only.

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
UCP12-A	Anti-Mouse Uncoupling Protein 1 (UCP1) IgG #2, aff pure
UCP12-P	Mouse Uncoupling Protein 1 (UCP1) Control/blocking
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
UCP22-A	Anti-Mouse Uncoupling Protein 2 (UCP2) IgG # 2, aff pure
UCP22-P	Mouse Uncoupling Protein 2 (UCP2) Control/blocking
UCP23-A	Anti-Human Uncoupling Protein 2 (UCP2) IgG # 3, aff pure (UCP2) (full length, His-tag) WB +ve control
UCP23-P	Human Uncoupling Protein 2 (UCP2) Control/blocking
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
UCP31-P	Human Uncoupling Protein 3 (UCP3) Control/blocking
UCP31-S	Anti-Human Uncoupling Protein 3 (UCP3) antiserum # 1
UCP32-A	Anti-Human Uncoupling Protein 3 (UCP3) IgG # 2, aff pure
UCP32-S	Anti-Human Uncoupling Protein 3 (UCP3) antiserum # 2
UCP33-A	Anti-Rat Uncoupling Protein 3 (UCP3) IgG # 3, aff pure
UCP33-P	Rat Uncoupling Protein 3 (UCP3) Control/blocking peptide
UCP34-A	Anti-Human Uncoupling Protein 3 (UCP3) IgG # 4, aff
UCP34-P	Human Uncoupling Protein 3 (UCP3) Control/blocking
UCP35-R-10	Recombinant purified Mouse Uncoupling Protein 3 (UCP3) (full length, His-tag)
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
UCP42-A	Anti-Rat Uncoupling Protein 4 (UCP4) IgG # 2, aff pure
UCP42-P	Rat Uncoupling Protein 4 (UCP4) Control/blocking peptide
UCP42-S	Anti-Rat Uncoupling Protein 4 (UCP4) antiserum # 2
UCP51-A	Anti-Rat Uncoupling Protein 5 (UCP5) IgG #1, aff pure
UCP51-P	Rat Uncoupling Protein 5 (UCP5) Control/blocking peptide
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)
UCP56-R-10	Recombinant purified Human Uncoupling Protein 5 (UCP5) (full length, His-tag)
UCP35-R-10-50	140121A

India Contact:

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