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UCP2 (m2): 293T Lysate: sc-127743

BACKGROUND

The uncoupling protein UCP1 (formerly designated UCP) is an integral membrane protein unique to brown adipose tissue mitochondria. UCP1 forms a dimer that acts as a proton channel, which can uncouple oxidative phosphorylation by dissipating the electrochemical potential across the inner mitochondrial membrane. This process induces heat production in brown adipose tissue and is involved in regulation of body temperature and glucose metabolism. UCP2 is a structurally related protein that also uncouples mitochondrial respiration. It is more widely expressed in human and mouse tissues, including white adipose tissue and muscle, than is UCP1. UCP2 is thought to play a role in body weight regulation. An additional UCP family member, UCP3, is highly muscle specific and is possibly involved in the uncoupling of oxidative phosphorylation in skeletal muscle.

REFERENCES

1. Nicholls, D.G., et al. 1984. Thermogenic mechanisms in brown fat. *Physiol. Rev.* 64: 1-64.
2. Jacobsson, A., et al. 1985. Mitochondrial uncoupling protein from mouse brown fat. Molecular cloning, genetic mapping, and mRNA expression. *J. Biol. Chem.* 260: 16250-16254.
3. Himms-Hagen, J. 1990. Brown adipose tissue thermogenesis: interdisciplinary studies. *FASEB J.* 4: 2890-2898.
4. Cassard, A.M., et al. 1990. Human uncoupling protein gene: structure, comparison with rat gene, and assignment to the long arm of chromosome 4. *J. Cell. Biochem.* 43: 255-264.
5. Boss, O., et al. 1997. Uncoupling protein-3: a new member of the mitochondrial carrier family with tissue-specific expression. *FEBS Lett.* 408: 39-42.
6. Fleury, C., et al. 1997. Uncoupling protein-2: a novel gene linked to obesity and hyperinsulinemia. *Nat. Genet.* 15: 269-272.
7. Tunstall, R.J., et al. 2002. Fasting activates the gene expression of UCP3 independent of genes necessary for lipid transport and oxidation in skeletal muscle. *Biochem. Biophys. Res. Commun.* 294: 301-308.
8. Zackova, M., et al. 2003. Activating ω -6 polyunsaturated fatty acids and inhibitory purine nucleotides are high affinity ligands for novel mitochondrial uncoupling proteins UCP2 and UCP3. *J. Biol. Chem.* 278: 20761-20769.
9. Jaburek, M., et al. 2003. Reconstitution of recombinant uncoupling proteins: UCP1, -2, and -3 have similar affinities for ATP and are unaffected by coenzyme Q10. *J. Biol. Chem.* 278: 25825-25831.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Ucp2 (mouse) mapping to 7 E3.

PRODUCT

UCP2 (m2): 293T Lysate represents a lysate of mouse UCP2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

UCP2 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive UCP2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.