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UCP1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant UCP1.
Catalog # AT4458a

Product Information

Application	WB, E
Primary Accession	P25874
Other Accession	NM_021833
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4E6
Calculated MW	33005

Additional Information

Gene ID	7350
Other Names	Mitochondrial brown fat uncoupling protein 1, UCP 1, Solute carrier family 25 member 7, Thermogenin, UCP1, SLC25A7, UCP
Target/Specificity	UCP1 (NP_068605, 232 a.a. ~ 267 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	UCP1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

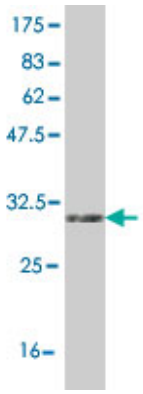
Background

Mitochondrial uncoupling proteins (UCP) are members of the family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H+/OH- are not known. UCPs contain the three homologous protein domains of MACPs. This gene is expressed only in brown adipose tissue, a specialized tissue which functions to produce heat.

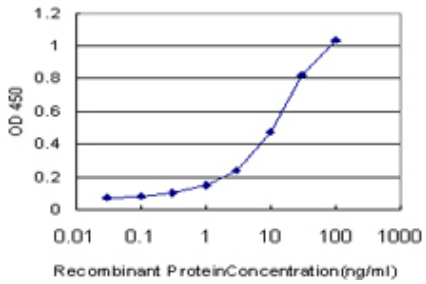
References

The Effects of Uncoupling Protein 1 and beta3-Adrenergic Receptor Gene Polymorphisms on Weight Loss and Lipid Profiles in Obese Women. Kim JY, et al. Int J Vitam Nutr Res, 2010 Mar. PMID 20803423.Population Genetic Analysis of the Uncoupling Proteins Supports a Role for UCP3 in Human Cold Resistance. Hancock AM, et al. Mol Biol Evol, 2010 Aug 28. PMID 20802238.Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.Large copy number variations are enriched in cases with moderate to extreme obesity. Wang K, et al. Diabetes, 2010 Jul 9. PMID 20622171.Association study of 182 candidate genes in anorexia nervosa. Pinheiro AP, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul. PMID 20468064.

Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (29.7 KDa) .



Detection limit for recombinant GST tagged UCP1 is approximately 0.3ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.