

Human/Mouse UCP1 PE-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 536435

Catalog Number: IC6158P 25 Tests, 100 Tests

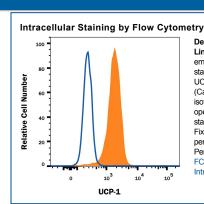
DESCRIPTION			
Species Reactivity	Human/Mouse		
Specificity	Detects human and mouse UCP1 in Western blots.		
Source	Monoclonal Mouse IgG _{2B} Clone # 536435		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human UCP1 Met1-Thr307 Accession # P25874		
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm		
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.		
	*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.		

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample	
Intracellular Staining by Flow Cytometry	10 μL/10 ⁶ cells	See Below	

Detection of UCP1 in Human Preadipocytes by Flow Cytometry. Human preadipocytes were stained with Mouse Anti-Human/Mouse UCP1 PE-conjugated Monoclonal Antibody (Catalog # IC6158P, filled histogram) or isotype control antibody (Catalog # IC0041P, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.



Detection of UCP1 in 3T3-L1 Mouse Cell Line by Flow Cytometry. 3T3-L1 mouse embryonic fibroblast adipose-like cell line was stained with Mouse Anti-Human/Mouse UCP1 PE-conjugated Monoclonal Antibody (Catalog # IC6158P, filled histogram) or isotype control antibody (Catalog # IC0041P, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage

Protect from light. Do not freeze.

12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Mitochondrial brown fat uncoupling protein 1 (UCP1; also Thermogenin and UCP) is a 33 kDa member of the mitochondrial carrier family of proteins. Human and mouse UCP1 are both 307 amino acids (aa) in length and contain three solcar repetitive regions and six transmembrane segments. UCP1 is found in brown adipose tissue, where it becomes activated by fatty acids and inhibited by nucleotides. It functions as a mitochondrial transporter that creates a proton leak across the inner mitochondrial membrane, uncoupling oxidative phosphorylation from ATP synthesis. As a result, energy is dissipated in the form of heat. Human and mouse UCP1 share 79% aa sequence identity.

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