

Datasheet for ABIN5518965
anti-UCP2 antibody (Middle Region)[Go to Product page](#)[1 Image](#)[1 Publication](#)

Overview

Quantity:	100 µg
Target:	UCP2
Binding Specificity:	AA 134-170, Middle Region
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Mitochondrial uncoupling protein 2(UCP2) detection. Tested with WB in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human UCP2 (134-170aa AQPTDVVKVRFQAQARAGGGRRYQSTVNAYKTIAREE), different from the related mouse and rat sequences by one amino acid.
Sequence:	AQPTDVVKVR FQAQARAGGG RRYQSTVNAY KTIAREE
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for Mitochondrial uncoupling protein 2(UCP2) detection. Tested with WB in Human,Mouse,Rat.</p> <p>Gene Name: uncoupling protein 2</p> <p>Protein Name: Mitochondrial uncoupling protein 2</p>

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: UCP2

Alternative Name: UCP2 ([UCP2 Products](#))

Background: Mitochondrial uncoupling proteins (UCP) are members of the larger 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 in many tissues, with the greatest expression in skeletal muscle. It is thought to play a role in nonshivering thermogenesis, obesity and diabetes. Chromosomal order is 5'-UCP3-UCP2-3'.

Synonyms: Mitochondrial uncoupling protein 2, UCP 2, Solute carrier family 25 member 8, UCPH, UCP2, SLC25A8

Gene ID: 7351

UniProt: [P55851](#)

Pathways: [Negative Regulation of Hormone Secretion](#), [Carbohydrate Homeostasis](#), [Proton Transport](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat
Notes: Tested Species: Species with positive results.
Other applications have not been tested. Optimal dilutions should be determined by end users.

Comment: Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot.

Restrictions: For Research Use only

Handling

Format: Lyophilized

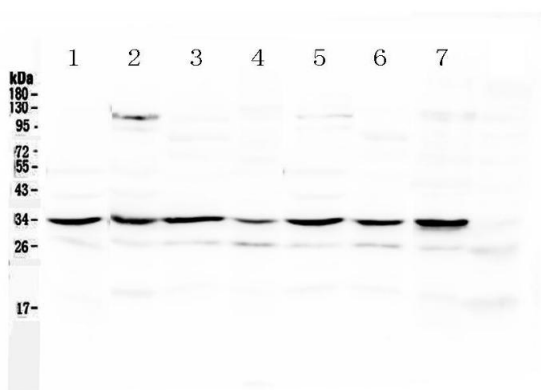
Handling

Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in:	Acar, Tayyar, Yuksel, Atis Aydin, Yildirim, Ekiz, Dag, Topcu: "Increased maternal C1q/TNF-related protein-1 (CTRP-1) serum levels in pregnancies with preeclampsia." in: The journal of maternal-fetal & neonatal medicine , pp. 1-6, (2018) (PubMed).
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Images



Western Blotting

Image 1. Western blot analysis of UCP2 using anti-UCP2 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat spleen tissue lysate, Lane 2: rat cardiac muscle tissue lysate, Lane 3: rat brain tissue lysate, Lane 4: mouse spleen tissue lysate, Lane 5: mouse cardiac muscle tissue lysate, Lane 6: mouse brain tissue lysate, Lane 7: human Hela whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-

UCP2 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for UCP2 at approximately 33KD. The expected band size for UCP2 is at 33KD.