

Datasheet for ABIN2905048
anti-UCP1 antibody (AA 179-296)[Go to Product page](#)

1 Validation

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Overview

Quantity:	100 µL
Target:	UCP1
Binding Specificity:	AA 179-296
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This UCP1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (fixed cells) (IF/ICC)

Product Details

Immunogen:	UCP1 (Pro179-Leu296)
Purification:	Antigen-specific affinity chromatography followed by Protein A affinity chromatography

Target Details

Target:	UCP1
Alternative Name:	Uncoupling Protein 1, Mitochondrial (UCP1 Products)
UniProt:	P12242
Pathways:	Proton Transport, Brown Fat Cell Differentiation

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 500 µg/mL

Buffer: 0.01M PBS, pH 7.4, containing 0.05 % Proclin-300, 50 % glycerol.

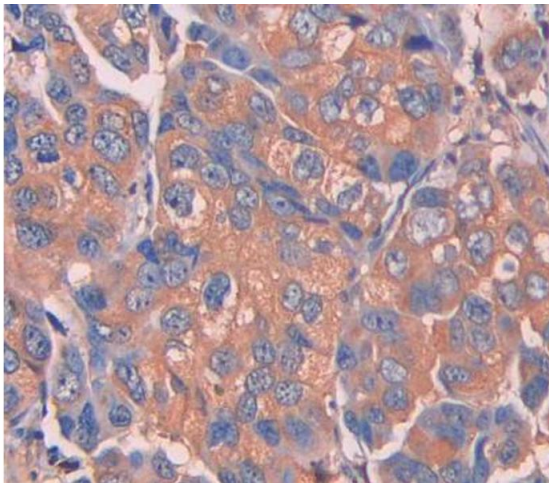
Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C, -20 °C

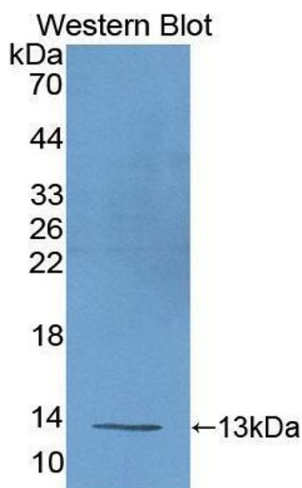
Storage Comment: Store at 4 °C for frequent use. Aliquot and store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. IHC-P analysis of Mouse Tissue, with DAB staining.



Western Blotting

Image 2. Western blot analysis of recombinant Mouse UCP1.



Successfully validated (Western Blotting (WB))

by [Mivechi lab, Georgia Cancer Center, Augusta University](#)

Report Number: 103357

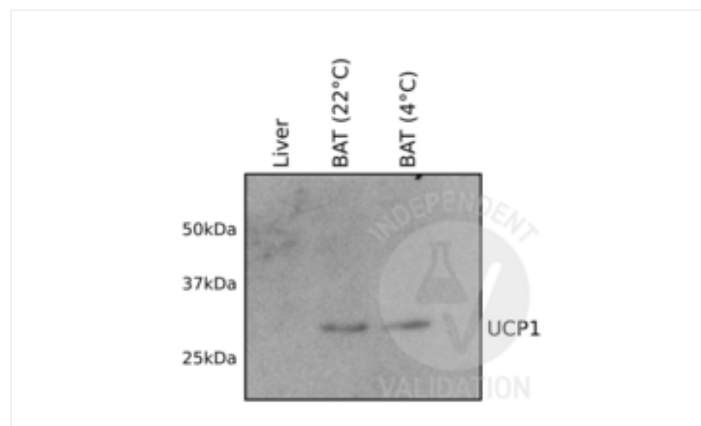
Date: Oct 03 2018

Target:	UCP1
Lot Number:	AB1808U769
Method validated:	Western Blotting (WB)
Positive Control:	Cold exposed mouse brown adipose tissue (BAT)
Negative Control:	Mouse liver tissue
Notes:	Passed. ABIN3056733 can detect mouse UCP1 protein in immunoblotting analysis.
Primary Antibody:	ABIN3056733
Secondary Antibody:	donkey anti-rabbit HRP-conjugated antibody (Jackson Immuno Research, 711-035-152)
Protocol:	<ul style="list-style-type: none"> Homogenize mouse brown fat tissue in 2ml mitochondria isolation buffer (70mM sucrose, 210mM mannitol, 5mM HEPES, 1mM EGTA, pH7.2, and 0.5% BSA). Centrifuge the homogenates for 10min at 800g at 4°C. Centrifuge the supernatant again at 8000g for 10min at 4°C. Lyse the resulting mitochondria fraction in RIPA buffer containing protease inhibitor cocktail (Pierce Protease Inhibitor, A32965, lot TA2492391). Determined protein concentration with Pierce BCA Protein Assay Kit (Pierce, 23225, lot OA180049). Separate 50µg of total protein per lane on a denaturing 12% SDS-PAGE gel (Bio-Rad, 1610156, lot 64144809) in a Mini Protean Tetra Cell for 2h at 80V. Transfer proteins onto Immobilon-P PVDF Membrane (Millipore, IPVH00010) using Mini Trans Blot Cell system (Bio-Rad, 1703930). Block membrane with 5% milk in PBS-T for 1h at RT. Incubate membrane with primary rabbit anti-UCP1 antibody (antibodies-online, ABIN3056733, lot AB1808U769) diluted to 1µg/ml ON at 4°C. Wash membrane 3x for 10min with PBS-T. Incubate membrane with secondary donkey anti-rabbit HRP-conjugated antibody (Jackson Immuno Research, 711-035-152) for 1h at RT. Wash membrane 3x for 10min with PBS-T. Incubate membrane Pierce ECL Western Blotting Substrate working solution (Thermo Scientific, 1859701, lot TB263310) for 1min at RT. Expose membrane to x-ray film for different amount of time.

Validation report #103357 for Western Blotting (WB)

Experimental Notes: The UCP1 antibody ABIN3056733 reveals a specific protein band in positive control samples (cold exposed mouse brown fat tissue), but not in negative control samples (liver tissue).

Image for Validation report #103357



Validation image no. 1 for anti-Uncoupling Protein 1 (Mitochondrial, Proton Carrier) (UCP1) (AA 179-296) antibody (ABIN3056733)

Lysates from mitochondrial fraction isolated from mouse liver tissue (negative control) or brown adipose tissue (BAT) without (22°C) or with (4°C) cold exposure for 6h were resolved by SDS-PAGE gel electrophoresis followed by Western blotting analysis using UCP1 primary antibody ABIN3056733.