

For Research Use Only

UCP2 Polyclonal antibody

Catalog Number: 11081-1-AP

Featured Product

71 Publications



Basic Information

Catalog Number:

11081-1-AP

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG1551

GenBank Accession Number:

BC011737

GeneID (NCBI):

7351

UNIPROT ID:

P55851

Full Name:

uncoupling protein 2 (mitochondrial, proton carrier)

Calculated MW:

33 kDa

Observed MW:

28-30 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:1000

IHC: 1:50-1:500

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, pig

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: mouse adipose tissue, mouse skeletal muscle tissue, mouse heart tissue, mouse spleen tissue, mouse liver tissue, rat liver tissue

IHC: human cervical cancer tissue, human ovary tissue, human hepatocirrhosis tissue, human skeletal muscle tissue, human liver tissue, human colon cancer tissue

FC (Intra): HeLa cells,

Background Information

UCP2 (uncoupling protein 2) is a member of the mitochondrial carrier protein super family located in the mitochondrial inner membrane. The UCPs differ greatly in tissue distribution: UCP1 is expressed only in brown adipose; UCP3 preferentially in skeletal muscle, brown adipose and heart; UCP4 and UCP5 mainly in the nervous system (18167556). In contrast, UCP2 has a broad distribution and is implicated in a wide range of pathophysiological processes, including diabetes and cancer. This antibody detect a band around 28-33 kDa corresponding to UCP2 protein in mouse liver, skeletal muscle and pancreas. Some upper and lower bands also were observed due to the dimer formation and degradation of the UCP2 protein (20103532). This antibody was raised against the full-length UCP2 protein and may cross-react with UCP3. It is notable that UCP2 is known to have a very short half-life less than 1 hour (17240372). It is strongly recommended that fresh-made lysate be used for western blot assays.

Notable Publications

Author	Pubmed ID	Journal	Application
Hong Zhong	30235442	Cell Physiol Biochem	WB
María Rodríguez-Hidalgo	30228311	Sci Rep	WB
Shilong Zhang	33013386	Front Pharmacol	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

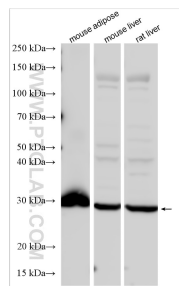
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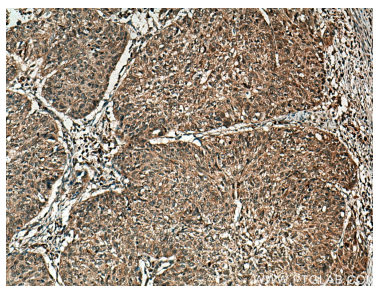
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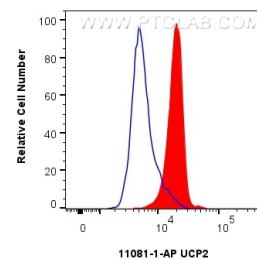
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 11081-1-AP (UCP2 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 11081-1-AP (UCP2 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1×10^6 HeLa cells were intracellularly stained with 0.25 μ g UCP2 Polyclonal antibody (11081-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 μ g Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).