Data Sheet (Cat.No.TMAB-01931)

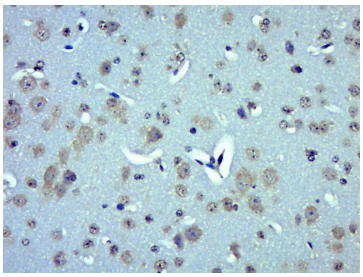
Anti-UCP2 Polyclonal Antibody

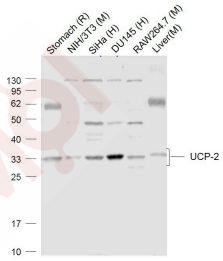
Product Details

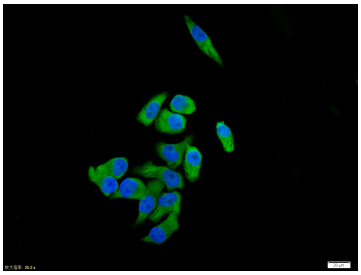
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Pig,Horse,Rabbit)
Molecular Weight:	Theoretical: 34 kDa. Actual: 33 kDa.
Purification:	Protein A purified

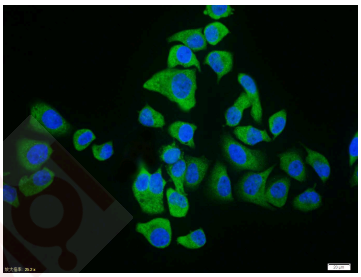
Applications

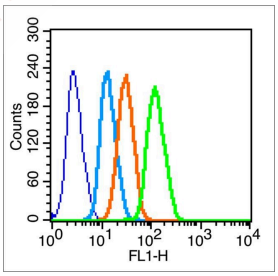
Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (UCP-2) Polyclonal Antibody, Unconjugated (TMAB-01931) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructionsand DAB staining. 2. Sample: Lane 1: Stomach (Rat) Lysate at 40 µg Lane 2: NIH/3T3 (Mouse) Cell Lysate at 30 µg Lane 3: SiHa (Human) Cell Lysate at 30 µg Lane 4: DU145 (Human) Cell Lysate at 30 µg Lane 5: RAW264.7 (Mouse) Cell Lysate at 30 µg Lane 6: Liver (Mouse) Lysate at 40 µg Primary: Anti-UCP-2 (TMAB-01931) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 33 kDa Observed band size: 33 kDa 3. Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (UCP-2) polyclonal Antibody, Unconjugated (TMAB-01931) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus. 4. Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (UCP-2) polyclonal Antibody, Unconjugated (TMAB-01931) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus. 5. Blank control (blue line): Hela (blue). Primary Antibody (green line): Rabbit Anti-UCP-2 antibody (TMAB-01931) Dilution: 1 µg/10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody (white blue line): f (ab/)2 fragment goat anti-rabbit IgG-FITC Dilution: 1 µg/test. Protocol The cells were fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2% BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature.











Application:	FCM,ICC/IF,IF,IHC-Fr,IHC-P,WB
Recommended	FCM=1 μg/Test; ICC/IF=1:100-500; IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500; WB=1:500-2000

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: mouse UCP-2
Antigen Species:	Mouse
Synonyms:	Solute carrier family 25 member 8;Uncoupling protein 2 mitochondrial proton carrier; Uncoupling Protein-2;SLC25A8;UCP 2;BMIQ4;Mitochondrial uncoupling protein 2;Uncoupling protein 2;UCPH
Biology Area:	Integration of energy metabolism,Integration of energy,Cancer,Obesity

Research Background

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. UCP2 gene is expressed in many tissues, with the greatest expression in skeletal muscle. UCP2 is thought to play a role in non shivering thermogenesis, obesity and diabetes.