Data Sheet (Cat.No.TMAB-01130)

TargetMol

Anti-MFN1 Antibody (5U87)

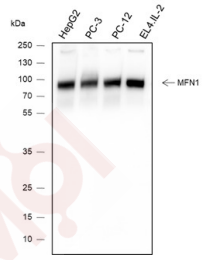
Product Details

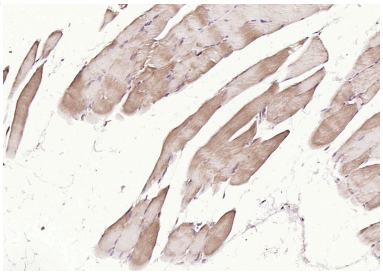
Ig Type:	IgG2a, κ
Reactivity:	Human,Mouse,Rat
Clone:	5U87
Purification:	Protein G purified

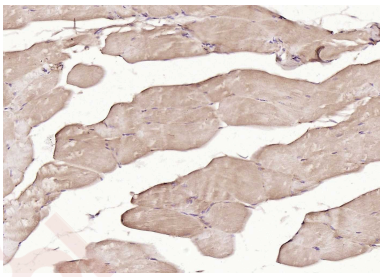
Applications

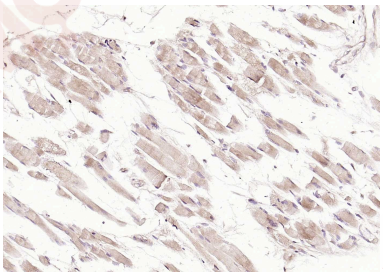
Verified Activity:	1. Blocking buffer: 5% NFDM/TBST Primary dilution: 1:1000 Primary incubation condition: 4°C overnight Secondary: Goat Anti-Mouse IgG H&L (HRP) Lysate: HepG2, PC-3, PC-12, EL4.IL-12 Protein loading quantity: 20 μg Exposure time: 60 s Predicted MW: 84 kDa Observed MW: 84 kDa 2. Paraformaldehyde-fixed, paraffin embedded (rat skeletal muscle); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 3. Paraformaldehyde-fixed, paraffin embedded (mouse skeletal muscle); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 4. Paraformaldehyde-fixed, paraffin embedded (human skeletal muscle); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 5. Paraformaldehyde-fixed, paraffin embedded (human heart); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 6. Paraformaldehyde-fixed, paraffin embedded (mouse heart); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining. 7. Paraformaldehyde-fixed, paraffin embedded (rat heart); 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; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed

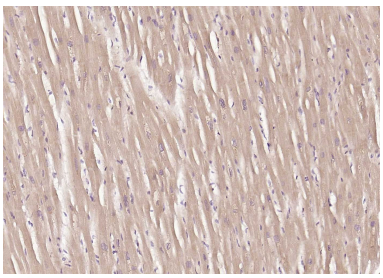
by operating according to SP Kit (Mouse) instructionsand DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded (human brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (MFN1) Monoclonal Antibody, Unconjugated (TMAB-01130) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructionsand DAB staining.

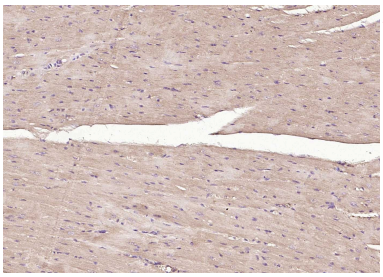


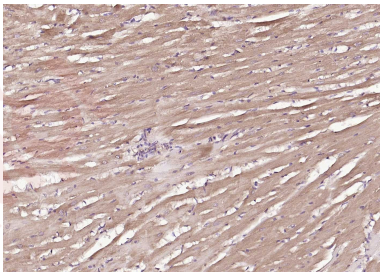


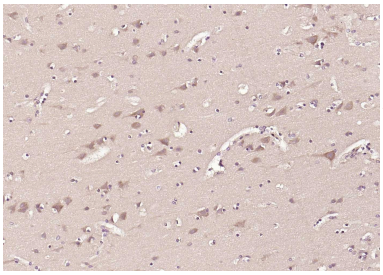












Application:	ICC/IF,IF,IHC-Fr,IHC-P,WB
Recommended	ICC/IF=1:50-200; IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500; WB=1:500-2000

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

Synonyms:	MFN 1;Fzo homolog;Transmembrane GTPase MFN1;Mitofusin-1
Biology Area:	Mitochondrial markers,Mitophagy fission and fusion,Parkinson's disease,GTP,Mitochondria

Research Background

Mitofusin 1 (Mfn1) and mitofusin 2 (Mfn2) are homologs for the Drosophila protein fuzzy onion (Fzo). They are mitochondrial membrane proteins and are mediators of mitochondrial fusion. A GTPase domain is required for Mfn protein function but the molecular mechanisms of the GTPase-dependent reaction as well as the functional division of the two Mfn proteins are unknown. They are essential for embryonic development and may play a role in the pathobiology of obesity. Although the Mfn1 and Mfn2 genes are broadly expressed, they show different levels of expression in different tissues. Two Mfn1 transcripts are elevated in heart, while Mfn2 mRNA is abundantly expressed in heart and muscle tissue but present only at low levels in many other tissues. Mfn1 localizes to mitochondria and participates in at least two different high molecular weight protein complexes in a GTP-dependent manner. Purified recombinant Mfn1 exhibited approximately eightfold higher GTPase activity than Mfn2.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481