bsm-33037M **[Primary Antibody]**

COX4I1 Mouse mAb, Mitochondrial Loading Control

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DATASHEET

Host: Mouse
Isotype: IgG
Clonality: Monoclonal
CloneNo.: 8D8
GeneID: 1327
SWISS: P13073
Target: COX4I1
Purification: affinity purified by Protein G
Concentration: 1mg/ml
Storage: Size : 50ul/100ul/500ul
0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Size : 200ug (PBS only)
0.01M PBS
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. [provided by RefSeq, Jul 2008]

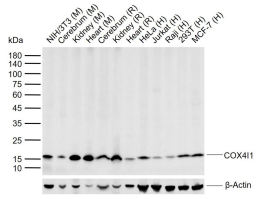
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:200-800)

Reactivity: Human, Mouse, Rat

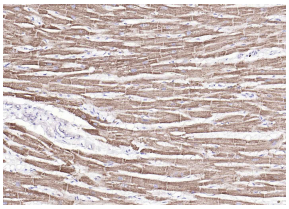
Predicted MW.: 17 kDa

Subcellular Location: Cytoplasm

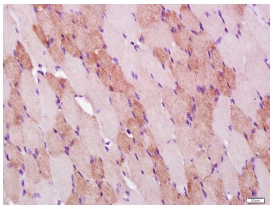
VALIDATION IMAGES



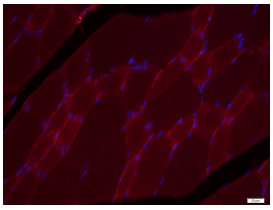
Sample: Lane 1: Mouse NIH/3T3 cell lysates Lane 2: Mouse Cerebrum tissue lysates Lane 3: Mouse Kidney tissue lysates Lane 4: Mouse Heart tissue lysates Lane 5: Rat Cerebrum tissue lysates Lane 6: Rat Kidney tissue lysates Lane 7: Rat Heart tissue lysates Lane 8: Human HeLa cell lysates Lane 9: Human Jurkat cell lysates Lane 10: Human Raji cell lysates Lane 11: Human 293T cell lysates Lane 12: Human MCF-7 cell lysates Primary: Anti-COX4I1(Mitochondrial Loading Control) (bsm-33037M) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 17 kDa Observed band size: 17 kDa



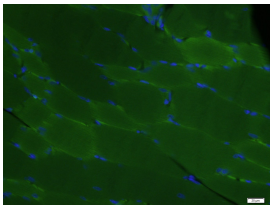
Paraformaldehyde-fixed, paraffin embedded (human heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (COX4I1(Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (bsm-33037M) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Mouse)(sp-0024) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (bsm-33037M) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (bsm-33037M) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody (bs-0296G-CY3) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (bsm-33037M) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody (bs-0296G-FITC) for 90 minutes, and DAPI for nuclei staining.

SELECTED CITATIONS

- **[IF=13.934]** Han Yan. et al. FAM3A maintains metabolic homeostasis by interacting with F1-ATP synthase to regulate the activity and assembly of ATP synthase. METABOLISM. 2022 Dec;:155372 WB ;Mouse, Human. 36470472
- **[IF=9.685]** Chen, Ying. et al. Elevated SFXN2 limits mitochondrial autophagy and increases iron-mediated energy production to promote multiple myeloma cell proliferation. CELL DEATH DIS. 2022 Sep;13(9):1-14 IF ;Human. 36163342
- **[IF=6.8]** Yixian Ren. et al. CDK5-USP30 signaling pathway regulates MAVS-mediated inflammation via suppressing mitophagy in MPTP/MPP+ PD model. ECOTOX ENVIRON SAFE. 2024 Jul;279:116446 WB ;Mouse. 38772138
- **[IF=5.6]** Weixing Ding. et al. Neuroprotective effects of macrostemonoside T on glutamate-induced injury in HT22 cells. BIOCHEM PHARMACOL. 2025 May;235:116827 ;. 39993610
- **[IF=3.585]** Li LL et al. ATPR Induces Acute Promyelocytic Leukemia Cells Differentiation and Growth Arrest by Blockade of SHP2/Rho/ROCK1 Pathway. Toxicol Appl Pharmacol. 2020 May 15;399:115053. Other ;. 32417439