Anti-NDUFA4L2 antibody, mouse monoclonal (#23)

Product code	74-316
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium
Immunogen	Purified recombinant MBP-NDUFA4L2 (full length, 2-87 aa)
Isotype	mouse IgG1κ
Reactivity	human, mouse, rat
Special notes	Specificity has been validated by Immunofluorescence staining with mitochondria-specific fluorescent dye (Fig. 2)
Application	1. Western blotting (dilution: 1/1000) Fig.1 2. Immunofluorescence staining (dilution: 1/10-1/1000) Fig. 2
Background	Component of the cytochrome c oxidase, the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Electrons originating from reduced cytochrome c in the intermembrane space (IMS) are transferred via the dinuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC reduces molecular oxygen to 2 water molecules unsing 4 electrons from cytochrome c in the IMS and 4 protons from the mitochondrial matrix (PubMed:22902835).
Data Link	UniProt Q9NRX3 (NUA4L_HUMAN)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 74-316 Anti- NDUFA4L2 antibody, mouse monoclonal (#23)

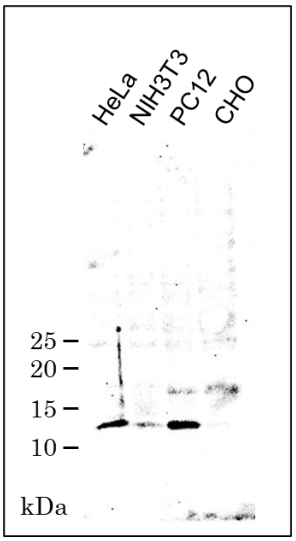

Fig 1. Western blotting with anti-NDUFA4L2 antibody (#23)

10 µg of indicated cell lysates was electrophoresed in a 15% PAAG and transferred to a PVDF membrane with a wet blotter. This filter was masked with 5% skim milk and 1µg/ml anti-NDUFA4L2 antibody (#23), 0.2 µg/ml anti-mouse IgG (HL)-HRP (ab205719) and ECL Western Blotting Detection Reagents (#RPN2109, Amersham)

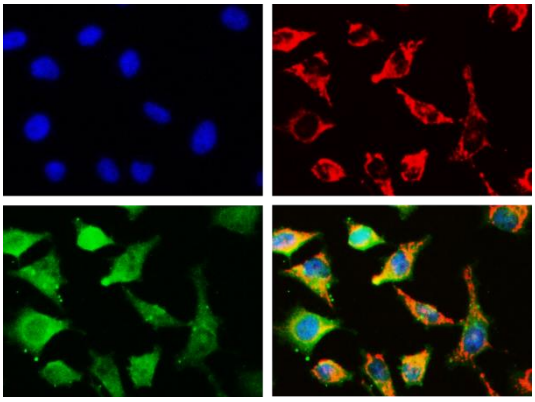

Fig 2. Immunofluorescence staining with anti-NDUFA4L2 antibody (#23)

HeLa cells were stained with mitochondria-specific fluorescent dye (red) (MT15, Dojindo) and fixed by 4% PFA. Anti-NDUFA4L2 antibody (#23) was reacted at 1/10 dilution as primary antibody and anti-IgG (HL) Alexa 488 conjugate was reacted at 1/1000 dilution as secondary antibody (green). Nuclei were stained by DAPI (blue).

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