SDHA(JM10-83)

rev. 02/27/17 Cat#:ET1703-40

Product Type: Recombinant rabbit monoclonal IgG, primary
antibodies
Species reactivity: Human, Mouse, Rat, Zebrafish
Applications: WB, ICC/IF, IHC, FC
Molecular Wt.: 68 kDa
Clone number: JM10-83

Description: In aerobic respiration reactions, succinate dehydrogenase (SDH) catalyzes the oxidation of succinate and ubiquinone to fumarate and ubiquinol. Four subunits comprise the SDH protein complex: a flavochrome subunit (SDHA), an iron-sulfur protein (SDHB), and two membrane-bound subunits (SDHC and SDHD) anchored to the inner mitochondrial membrane. Mutations to these subunits cause mitochondrial dysfunction, corresponding to several distinct disorders. Mutations in the membrane bound components may cause hereditary paraganglioma, while SDHA mutations are associated with juvenile encephalopathy as well as Leigh Syndrome, a severe neurological disorder. Inactivating mutations in SDHB correlate with inherited, but not necessarily sporadic, cases of pheochromocytoma.

Immunogen:

Recombinant protein.

Positive control:

Jurkat, MCF-7, HepG2, NIH-3T3, Hela, human liver tissue, human kidney tissue, mouse testis tissue, mouse skeletal muscle tissue, mouse colon tissue, zebrafish tissue.

Subcellular location:

Mitochondrion inner membrane.

Database links:

SwissProt: P31040(Human) Q8K2B3(Mouse) Q920L2(Rat)

Recommended Dilutions:

WB: 1:500-1:1,000	ICC: 1:50-1:200
IHC: 1:50-1:200	FC: 1:50-1:100

Storage Buffer:

1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction:

Store at +4 $^\circ$ C after thawing. Aliquot store at -20 $^\circ$ C or -80 $^\circ$ C. Avoid repeated freeze / thaw cycles.

Purity: ProA affinity purified.



Fig1: Western blot analysis of SDHA on Jurkat cells lysates using anti-SDHA antibody at 1/500 dilution.



Fig2: ICC staining SDHA in MCF-7 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Fig3: ICC staining SDHA in HepG2 cells (red). The nuclear counter stain is DAP1 (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



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Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish B=bovine Dg=dog Pg=pig Sc=S.



Fig4: ICC staining SDHA in NIH-3T3 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Fig5: Immunohistochemical of analysis tissue paraffin-embedded human liver using anti-SDHA antibody. Counter stained with hematoxylin.



Fig6: Immunohistochemical analysis of paraffin-embedded human kidney tissue using antibody. anti-SDHA Counter stained with hematoxylin.



Fig7: Immunohistochemical analvsis of paraffin-embedded mouse testis tissue using anti-SDHA antibody. Counter stained with hematoxylin.



Fig8: Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-SDHA antibody. Counter stained with hematoxylin.



Fig9: of Immunohistochemical analysis paraffin-embedded mouse colon tissue using anti-SDHA antibody. Counter stained with hematoxylin.



Fig10: Immunohistochemical analysis of paraffin-embedded zebrafish tissue using anti-SDHA antibody. Counter with stained hematoxylin.



Fig11: Flow cytometric analysis of Hela cells with SDHA antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



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Background References

- 1. Kang Y et al. Tim29 is a novel subunit of the human TIM22 translocase and is involved in complex assembly and stability. Elife 5:N/A (2016).
- 2. Donti TR et al. Expanding the phenotypic spectrum of Succinyl-CoA ligase deficiency through functional validation of a new SUCLG1 variant. Mol Genet Metab 119:68-74 (2016).

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