

Product Name: KD-Validated NDUFS1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00387

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:100-1:1,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 79.5kDa

Antigen Information

Gene Name	NDUFS1 NDUFS1; NADH:Ubiquinone Oxidoreductase Core Subunit S1; NADH-Ubiquinone Oxidoreductase 75 KDa Subunit, Mitochondrial; CI-75k; NADH Dehydrogenase (Ubiquinone) Fe-S Protein 1, 75kDa (NADH-Coenzyme Q Reductase); Complex I 75kDa Subunit 2 3NADH
Alternative Names	Dehydrogenase (Ubiquinone) Fe-S Protein 1 (75kD) (NADH-Coenzyme Q Reductase); Mitochondrial NADH-Ubiquinone Oxidoreductase 75 KDa Subunit; Complex I, Mitochondrial Respiratory Chain, 75-KD Subunit; Complex I-75kD; EC 7.1.1.2; CI-75Kd; PRO1304; CI-75kD; MC1DN5
Gene ID	4719.0
SwissProt ID	P28331
Immunogen	A synthesized peptide derived from human Ndufs1

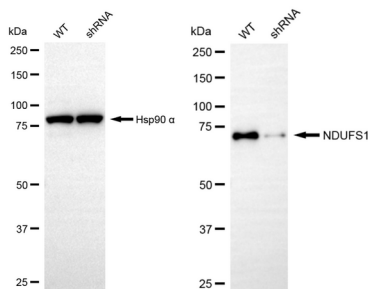
Background

The protein encoded by this gene belongs to the complex I 75 kDa subunit family. Mammalian complex I is composed of 45 different subunits. It locates at the mitochondrial inner membrane. This protein has NADH dehydrogenase activity and oxidoreductase activity. It transfers electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. This protein is the largest subunit of complex I and it is a component of the iron-sulfur (IP) fragment of the enzyme. It may form part of the active site crevice where NADH is oxidized. Mutations in this gene are associated with complex I deficiency. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2011]

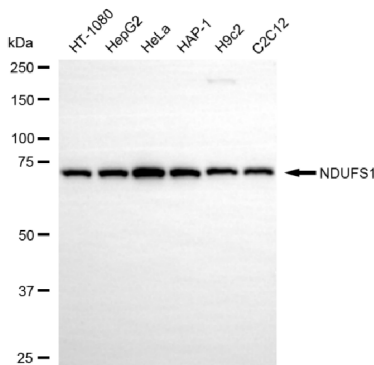
Research Area

Tags & Cell Markers, Neuroscience, Cancer, Metabolism

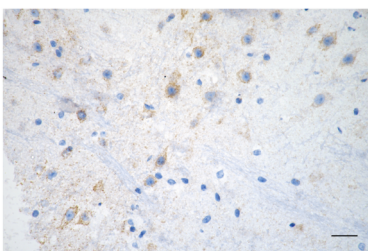
Image Data



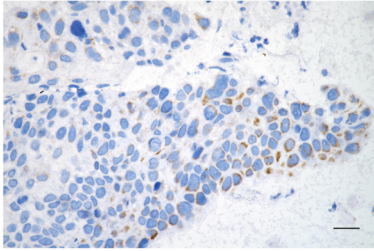
Western blotting analysis using NDUF51 antibody (KVA00387). NDUF51 expression in wild-type (WT) and NDUF51 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with NDUF51 antibody (KVA00387, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



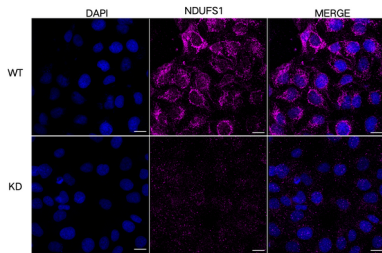
Western blotting analysis using NDUF51 antibody (KVA00387). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with NDUF51 antibody (KVA00387, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



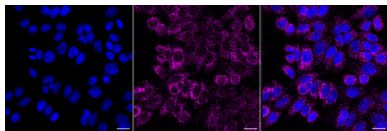
Immunohistochemistry was performed on paraffin-embedded mouse brain using NDUF51 antibody (KVA00387, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



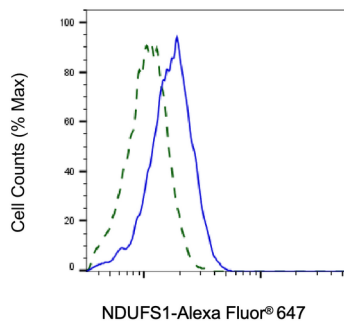
Immunohistochemistry was performed on paraffin-embedded human esophageal carcinoma using NDUF51 antibody (KVA00387, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μ m.



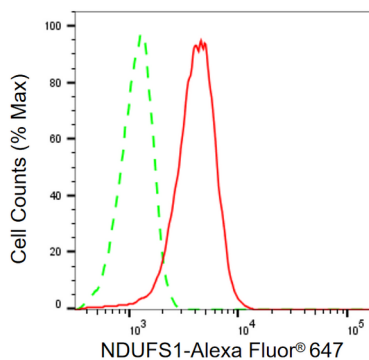
Immunocytochemical staining of HeLa cells using NDUF51 antibody (KVA00387, 1:1,000), Top panel: wild-type (WT); Bottom panel: NDUF51 shRNA knockdown (KD). Nuclei were stained blue with DAPI; NDUF51 was stained magenta with Alexa Fluor® 647. Scale bar, 20 μ m.



Immunocytochemical staining of HepG2 cells with NDUF51 antibody (KVA00387, 1:1,000). Nuclei were stained blue with DAPI; NDUF51 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.



Validation of NDUF51 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HT-1080 cells were stained with NDUF51 antibody (KVA00387, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of NDUF51 expression in HepG2 cells using NDUF51 antibody (KVA00387, 1:2,000). Green, isotype control; red, NDUF51.