

SDHAF1 Antibody

Catalog # ASC11491

Product Information

Application	WB, IF, ICC, E
Primary Accession	A6NFY7
Other Accession	NP_001036096 , 111038124
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	12806
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SDHAF1 antibody can be used for detection of SDHAF1 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunocytochemistry starting at 5 μ g/mL. For immunofluorescence start at 5 μ g/mL.

Additional Information

Gene ID	644096
Other Names	Succinate dehydrogenase assembly factor 1, mitochondrial, SDH assembly factor 1, SDHAF1, LYR motif-containing protein 8, SDHF1
Target/Specificity	SDHAF1; SDHAF1 antibody is predicted to not cross-react with other SDHAF protein family members.
Reconstitution & Storage	SDHAF1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SDHAF1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SDHAF1 {ECO:0000303 PubMed:19465911, ECO:0000312 HGNC:HGNC:33867}
Function	Plays an essential role in the assembly of succinate dehydrogenase (SDH), an enzyme complex (also referred to as respiratory complex II) that is a component of both the tricarboxylic acid (TCA) cycle and the mitochondrial electron transport chain, and which couples the oxidation of succinate to fumarate with the reduction of ubiquinone (coenzyme Q) to ubiquinol (PubMed: 19465911 , PubMed: 24954417). Promotes maturation of the iron-sulfur protein subunit SDHB of the SDH catalytic dimer, protecting it from

the deleterious effects of oxidants (PubMed:[24954417](#)). May act together with SDHAF3 (PubMed:[24954417](#)). Contributes to iron-sulfur cluster incorporation into SDHB by binding to SDHB and recruiting the iron-sulfur transfer complex formed by HSC20, HSPA9 and ISCU through direct binding to HSC20 (PubMed:[26749241](#)).

Cellular Location	Mitochondrion matrix
Tissue Location	Ubiquitously expressed.

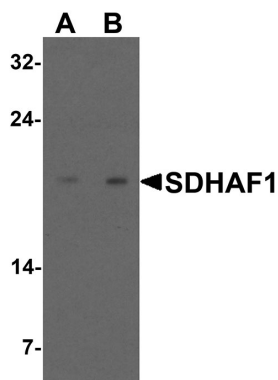
Background

SDHAF1 Antibody: SDHAF1 (Succinate dehydrogenase complex assembly factor 1) is one of the subunits of the succinate dehydrogenase (SDH) complex (or complex II) of the mitochondrial respiratory chain. SDHAF1 resides in the mitochondria, and is essential for SDH assembly, but does not physically associate with the complex in vivo. Mutations in this gene are associated with SDH-defective infantile leukoencephalopathy (mitochondrial complex II deficiency). Unlike the related protein SDHAF2, SDHAF1 is not thought to be a tumor suppressor.

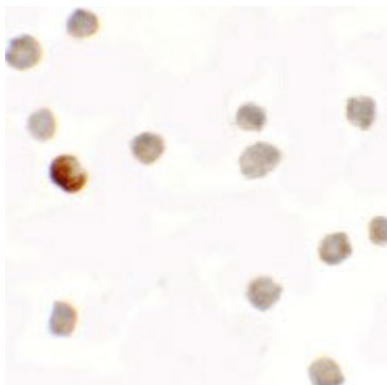
References

Ghezzi D, Goffrini P, Uziel G, et al. SDHAF1, encoding a LYR complex-II specific assembly factor, is mutated in SDH-defective infantile leukoencephalopathy. *Nat. Genet.* 2009; 41:654-6.
Hensen EE and Bayley JP. Recent advances in the genetics of SDH-related paraganglioma and pheochromocytoma. *Fam. Cancer* 2011; 10:355-63.

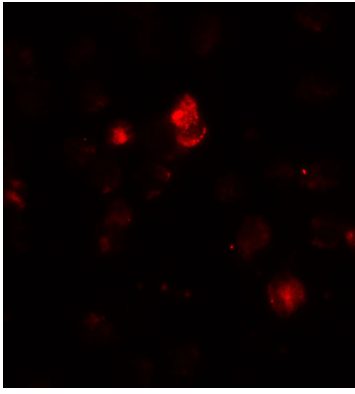
Images



Western blot analysis of SDHAF1 in 3T3 cell lysate with SDHAF1 antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of SDHAF1 in 3T3 cells with SDHAF1 antibody at 5 µg/mL.



Immunofluorescence of SDHAF1 in 3T3 cells with SDHAF1 antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.