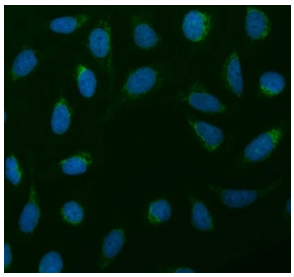
SDHA Antibody (R32062)

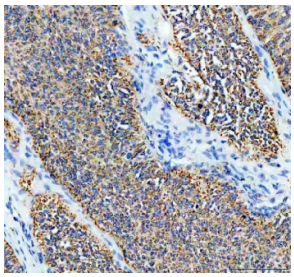
Catalog No.	Formulation	Size
R32062	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

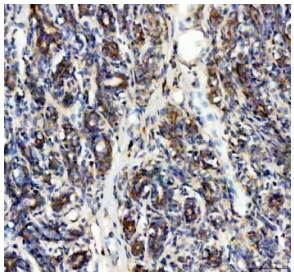
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P31040
Localization	Cytoplasm (Mitochondria)
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This SDHA antibody is available for research use only.



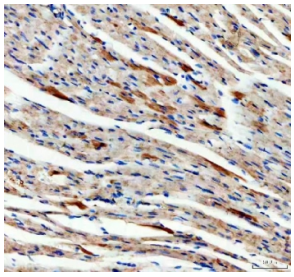
Immunofluorescent staining of FFPE human U-2 OS cells with SDHA antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



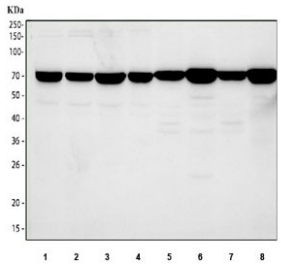
IHC staining of FFPE human ovarian cancer tissue with SDHA antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



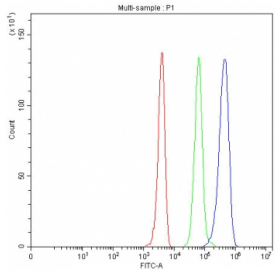
IHC staining of FFPE human breast cancer tissue with SDHA antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE mouse heart tissue with SDHA antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human 293T, 2) human MCF7, 3) human HepG2, 4) human HeLa, 5) rat brain, 6) rat kidney, 7) mouse brain and 8) mouse kidney tissue lysate with SDHA antibody. Predicted molecular weight ~73 kDa.



Flow cytometry testing of fixed and permeabilized human 293T cells with SDHA antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= SDHA antibody.

Description

Complex II of the mitochondrial respiratory chain, also known as succinate dehydrogenase or succinate:ubiquinone oxidoreductase, consists of 4 nuclear-encoded polypeptides, these are the flavoprotein subunit (SDHA), the iron sulfur protein subunit (SDHB), and the integral membrane protein subunits SDHC and SDHD. SDHA is an acronym for succinate dehydrogenase complex subunit A. The succinate dehydrogenase (SDH) protein complex catalyzes the oxidation of succinate (succinate + ubiquinone => fumarate + ubiquinol). The SDHA subunit is connected to the SDHB subunit on the hydrophilic, catalytic end of the complex, and weighs 72.7 kDA. Mutations in the SDHA subunit have a distinct pathology from mutations in the SDHB/SDHC/SDHD subunits; it is the only subunit to never have shown tumor suppressor behaviour. Heterozygous carriers of an SDHA mutation do not develop paragangliomas as has been seen for

mutations in the other subunits. This appears to be due to the expression of two similar SDHA genes (Types I and II) in the paraganglia system.

Application Notes

Optimal dilution of the SDHA antibody should be determined by the researcher.

Immunogen

Amino acids 44-380 of human SDHA were used as the immunogen for the SDHA antibody.

Storage

After reconstitution, the SDHA antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.