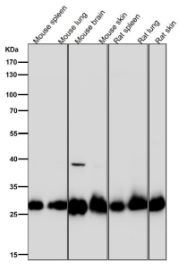
SDHB Antibody / Succinate dehydrogenase subunit B [clone 32S25] (FY12536)

Catalog No.	Formulation	Size
FY12536	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

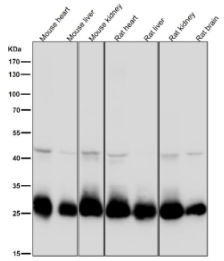
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32S25
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P21912
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunoprecipitation : 1:50
Limitations	This SDHB antibody is available for research use only.



All lanes use the SDHB antibody at 1:3000 dilution for 1 hour at room temperature.
Expected molecular weight: 25-32 kDa.



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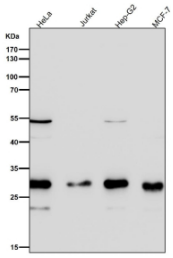

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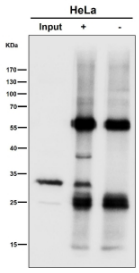

Immunoprecipitation analysis using the SDHB antibody at 1:50 dilution. Western blot performed at 1:1000 dilution. Expected molecular weight: 25-32 kDa.

Description

SDHB antibody detects succinate dehydrogenase complex iron sulfur subunit B, encoded by the SDHB gene. SDHB is a core component of mitochondrial complex II, which functions in both the tricarboxylic acid cycle and the electron transport chain. It binds iron sulfur clusters that mediate electron transfer from succinate to ubiquinone. Through this activity, SDHB is essential for mitochondrial energy metabolism and cellular respiration.

SDHB antibody is widely used in studies of mitochondrial biology, metabolism, and cancer. Loss of SDHB expression is associated with hereditary paraganglioma pheochromocytoma syndromes and other mitochondrial disorders. Tumors with SDHB mutations display altered metabolic profiles characterized by accumulation of succinate and stabilization of hypoxia inducible factors. By detecting SDHB, researchers can investigate the links between mitochondrial dysfunction and tumorigenesis.

In western blot assays, SDHB antibody identifies protein bands of the expected molecular weight in mitochondrial fractions. Immunohistochemistry highlights mitochondrial distribution in tissues, while immunofluorescence reveals punctate staining consistent with mitochondrial localization. These applications enable precise analysis of SDHB expression.

SDHB deficiency contributes to cancer development by altering redox balance, epigenetic regulation, and signaling pathways. By applying SDHB antibody, scientists can study how mitochondrial complex II dysfunction promotes tumorigenesis and impacts cellular metabolism. It is also valuable for identifying SDHB deficient tumors in diagnostic pathology.

Beyond oncology, SDHB plays roles in neurology and cardiology, where mitochondrial function is critical for tissue survival. Mutations in SDHB contribute to metabolic and degenerative diseases affecting high energy demanding tissues. SDHB antibody therefore provides a versatile tool for investigating mitochondrial biology in health and disease.

SDHB antibody from NSJ Bioreagents provides reliable specificity for studying mitochondrial metabolism, tumorigenesis, and energy homeostasis. Its strong performance across applications ensures accurate detection of SDHB in diverse research contexts.

Application Notes

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

Immunogen

A synthesized peptide derived from human SDHB was used as the immunogen for the SDHB antibody.

Storage

Store the SDHB antibody at -20oC.