

🕜 Tel: +1-301-363-4651 🛛 🖂 Email: cusabio@cusabio.com 🛛 🥑 Website: www.cusabio.com 🌘

NDUFS4 Recombinant Monoclonal Antibody

Product Code	CSB-RA588190A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O43181
Immunogen	A synthesized peptide derived from human NDUFS4
Species Reactivity	Human
Tested Applications	ELISA, IHC, FC; Recommended dilution: IHC:1:50-1:200, FC:1:50-1:200
Relevance	Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed not to be involved in catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. {ECO:0000269 PubMed:11181577, ECO:0000269 PubMed:12611891, ECO:0000269 PubMed:9463323}.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Metabolism; Signal transduction
Gene Names	NDUFS4
Clone No.	9H1

Image



IHC image of CSB-RA588190A0HU diluted at 1:100 and staining in paraffin-embedded human small intestine tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.

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Overlay Peak curve showing MCF7 cells stained with CSB-RA588190A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific proteinprotein interactions followed by the antibody (1ug/1*10⁶cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Antirabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1ug/1*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The production of the NDUFS4 recombinant monoclonal antibody follows a stringent and precise procedure to ensure its quality and specificity. Initially, B cells are isolated from an immunized animal using a synthesized peptide derived from human NDUFS4 as the immunogen. Subsequently, total RNA is extracted from the isolated B cells and converted into cDNA through reverse transcription. The NDUFS4 antibody genes are then amplified using PCR with primers specific to the antibody constant regions and incorporated into an expression vector. This vector is introduced into host cells to enable the production of the NDUFS4 recombinant monoclonal antibody. The antibody is collected from the cell culture supernatant and purified using affinity chromatography, resulting in a highly purified formulation. Comprehensive characterization assays, including ELISA, IHC, and FC analysis, are conducted to verify the antibody's specificity and functionality, ensuring its precise binding to human NDUFS4 protein.