



Anti-ATP5A1 monoclonal antibody, clone 8I21CE5G0 (DCABH-272)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Mouse monoclonal to ATP5A
Antigen Description	Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites.
Immunogen	Purified bovine ATP synthase
Isotype	IgG2b
Source/Host	Mouse
Species Reactivity	Mouse, Rat, Cow, Human, Zebrafish
Clone	8I21CE5G0
Purification	Near homogeneity as judged by SDS-PAGE. This antibody was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
Conjugate	Unconjugated
Applications	IHC-Fr, WB, ICC/IF, Flow Cyt

Positive Control	Isolated mitochondria from Human, Rat, Bovine and Mouse Heart, and HepG2, Cultured Human embryonic lung-derived fibroblasts (strain MRC5), HL-60 cells
Format	Liquid
Size	100 µg
Buffer	Preservative: 0.02% Sodium azide; Constituent: HBS
Preservative	0.02% Sodium Azide
Storage	Store at +4°C. Do not freeze.

GENE INFORMATION

Gene Name	ATP5A1 ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle [Bos taurus]
Official Symbol	ATP5A1
Synonyms	ATP5A1; ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle; ATP synthase subunit alpha, mitochondrial; ATP synthase alpha subunit; MGC139059;
Entrez Gene ID	282578
Protein Refseq	NP_777109
UniProt ID	P19483
Pathway	Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Electron Transport Chain, organism-specific biosystem; F-type ATPase, eukaryotes, organism-specific biosystem; Huntingtons disease, organism-specific biosystem; Huntingtons disease, conserved biosystem; Metabolic pathways, organism-specific biosystem;
Function	ATP binding; hydrogen ion transporting ATP synthase activity, rotational mechanism; hydrolase activity, acting on acid anhydrides, catalyzing transmembrane movement of substances; nucleotide binding; protein binding; proton-transporting ATPase activity, r