abcam

Product datasheet

Anti-MT-CYB antibody [5B3-6E3] - N-terminal ab219823

2 Images

Overview

Product name	Anti-MT-CYB antibody [5B3-6E3] - N-terminal
Description	Mouse monoclonal [5B3-6E3] to MT-CYB - N-terminal
Host species	Mouse
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human MT-CYB (N terminal). Database link: **P00156**
Positive control	WB: Mitochondria from cultured normal control human dermal fibroblasts neonatal (HDFn); Whole cell extract of cultured normal control human dermal fibroblasts neonatal (HDFn).
General notes	**Western blot advice**: Hydrophobic intrinsic membrane proteins such as the core mtDNA-encoded proteins of the mitochondrial OXPHOS complexes tend to run faster in SDS-PAGE than predicted by their amino acid composition. This is likely due to incomplete unfolding of the protein and a more negative charge:mass ratio. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 0.36% HEPES, 0.87% Sodium chloride
Purity	Protein L purified

Purification notes	Purified from hybridoma cell culture supernatant by Protein L affinity chromatography from fetal bovine serum containing medium (Protein L does not bind bovine IgG).
Clonality	Monoclonal
Clone number	5B3-6E3
Isotype	IgG2b
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219823 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.05 - 2 µg/ml. Detects a band of approximately 28 kDa (predicted molecular weight: 43 kDa).

Target

Function	Component of the ubiquinol-cytochrome c reductase complex (complex III or cytochrome b-c1 complex), which is a respiratory chain that generates an electrochemical potential coupled to ATP synthesis.
Involvement in disease	Defects in MT-CYB are a rare cause of mitochondrial dysfunction underlying different myopathies. They include mitochondrial encephalomyopathy, hypertrophic cardiomyopathy (HCM), and sporadic mitochondrial myopathy (MM). In mitochondrial myopathy, exercise intolerance is the predominant symptom. Additional features include lactic acidosis, muscle weakness and/or myoglobinuria. Defects in MTCYB are also found in cases of exercise intolerance accompanied by deafness, mental retardation, retinitis pigmentosa, cataract, growth retardation, epilepsy (multisystem disorder). Cardiomyopathy, infantile histiocytoid Leber hereditary optic neuropathy
Sequence similarities	Belongs to the cytochrome b family.
Cellular localization	Mitochondrion inner membrane.

Images

Western blot - Anti-MT-CYB antibody [5B3-6E3] - N-terminal (ab219823)

All lanes : Anti-MT-CYB antibody [5B3-6E3] - N-terminal (ab219823) at 0.1 µg/ml

Lane 1 : Mitochondria from cultured normal control human dermal fibroblasts neonatal (HDFn)
Lane 2 : Mitochondria from HDFn cells depleted of mtDNA by long-term proliferation in the presence of ethidium bromide

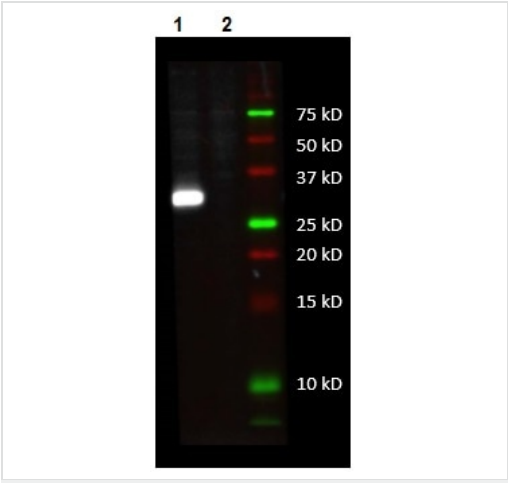
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-labeled Goat-anti-mouse IgG

Developed using the ECL technique.

Predicted band size: 43 kDa
Observed band size: 28 kDa

Mitochondrial proteins solubilized in 2% SDS were separated by SDS-PAGE and then transferred to PVDF membranes in CAPS buffer.



Western blot - Anti-MT-CYB antibody [5B3-6E3] - N-terminal (ab219823)

All lanes : Anti-MT-CYB antibody [5B3-6E3] - N-terminal (ab219823) at 2 µg/ml

Lane 1 : Whole cell extract of cultured normal control human dermal fibroblasts neonatal (HDFn)
Lane 2 : Whole cell extract HDFn-Rho0 cells depleted of mtDNA by long-term culture in the presence of ethidium bromide

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : HRP-labeled Goat-anti-mouse IgG

Developed using the ECL technique.

Predicted band size: 43 kDa
Observed band size: 28 kDa

Proteins were separated by SDS-PAGE and then transferred to PVDF membranes in CAPS buffer.

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