For Research Use Only

CoraLite®568-conjugated ATP5A1 Monoclonal antibody

Catalog Number:CL568-66037

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Basic Information

Catalog Number:
CL568-66037

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG8119

GenBank Accession Number:
BC064562

GeneID (NCBI):
498

UNIPROT ID:
P25705

Full Name:
ATP synthase, H+ transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle

Calculated MW:
60 kDa

Purification Method:
Protein A purification

CloneNo.:
1B10H3

Excitation/Emission maxima wavelengths:
568 nm / 587 nm

Applications

Tested Applications:

Species Specificity:
human, mouse, rat, monkey

Background Information

The ATP5A1 gene encodes the α subunit of mitochondrial ATP synthase which produces ATP from ADP in the presence of a proton gradient across the membrane. The mitochondrial ATP synthase, also known as Complex V or F1F0 ATP synthase, is a multi-subunit enzyme complex consisting of two functional domains, the F1-containing the catalytic core and the Fo- containing the membrane proton channel. F0 domain has 10 subunits: a, b, c, d, e, f, g, OSCP, A6L, and F6. F1 is composed of subunits α, β, γ, δ, ε, and a loosely attached inhibitor protein IF1. Recently defect in ATP5A1 has been linked to the fatal neonatal mitochondrial encephalopathy. ATP5A1 is localized in the mitochondria and anti-ATP5A1 can be used as the loading control for mitochondrial or Complex V proteins. This antibody recognizes the endogenous ATP5A1 protein in lysates from various cell lines and tissues. The predicted MW of ATP5A1 is 60 kDa, while it undergoes the transit peptide cleavage to become a mature form around 50-55 kDa. Several isoforms of ATP5A1 exist due to the alternative splicing.

Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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Selected Validation Data