

For Research Use Only

CoraLite®594-conjugated CPT1B Recombinant monoclonal antibody

Catalog Number:CL594-82701-3



Basic Information

Catalog Number:

CL594-82701-3

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG17840

GenBank Accession Number:

BC131570

GeneID (NCBI):

1375

UNIPROT ID:

Q92523

Full Name:

carnitine palmitoyltransferase 1B
(muscle)

Calculated MW:

567 aa, 64 kDa

Observed MW:

70-85 kDa

Purification Method:

Protein A purification

CloneNo.:

242881B6

Recommended Dilutions:

IF-P: 1:50-1:500

Excitation/Emission maxima
wavelengths:

588 nm / 604 nm

Applications

Tested Applications:

IF-P

Species Specificity:

mouse

Positive Controls:

IF-P: mouse heart tissue,

Background Information

CPT1B (carnitine palmitoyltransferase 1B) is an isoform of the mitochondrial enzyme carnitine palmitoyltransferase 1, primarily expressed in skeletal muscle and heart tissues, where it plays a critical role in the regulation of long-chain fatty acid oxidation. By catalyzing the conversion of long-chain acyl-CoA to acyl-carnitine, which is then transported into the mitochondrial matrix for β -oxidation, CPT1B serves as a rate-limiting enzyme in energy metabolism, particularly under conditions of high energy demand such as exercise. Its activity is allosterically inhibited by malonyl-CoA, allowing tight metabolic control, and genetic variations or dysregulation of CPT1B have been implicated in metabolic disorders, insulin resistance, and obesity, highlighting its importance in maintaining systemic energy homeostasis.

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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

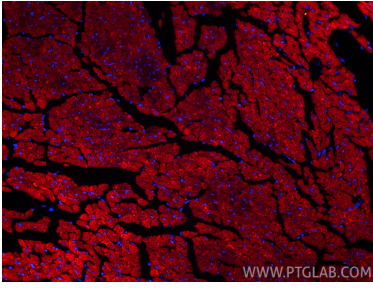
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using CoraLite®594 CPT1B antibody (CL594-82701-3, Clone: 242881B6) at dilution of 1:200. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).