

#12362 Store at -20C

DLAT (4A4-B6-C10) Mouse mAb**Cell Signaling**
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H Mk	Endogenous	69	Mouse IgG1	#P10515	1737

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:50 - 1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

DLAT (4A4-B6-C10) Mouse mAb recognizes endogenous levels of total DLAT protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant human DLAT protein.

Background

Dihydrolipoamide acetyltransferase (DLAT) transfers an acetyl group from pyruvate to CoA to synthesize acetyl-CoA (1-4). This protein, also known as the E2 subunit of the pyruvate dehydrogenase complex (PDC-E2), has been implicated in the literature as the primary autoantigen in primary biliary cirrhosis (2-5). Antimitochondrial antibodies (AMAs) are likely formed when DLAT is exposed to the immune system in apoptotic cells of the bile duct (3,5). Research studies have shown that in some cases, cosmetics, NSAIDs, chewing gum, acetaminophen, and other compounds could trigger exposure of DLAT in sensitive individuals (3). The presence of AMAs is often detectable before disease diagnosis (4,5). Research studies have also shown that activation of the Toll-like receptor-3 (TLR-3) pathway is involved in the progression from a subclinical to clinical state (4).

Background References

1. Thekkumkara, T.J. et al. (1988) *FEBS Lett* 240, 45-8.
2. Coppel, R.L. et al. (1988) *Proc Natl Acad Sci U S A* 85, 7317-21.
3. Naiyanetr, P. et al. (2011) *J Autoimmun* 37, 209-16.
4. Ambrosini, Y.M. et al. (2011) *Clin Exp Immunol* 166, 110-20.
5. Lleo, A. et al. (2009) *Hepatology* 49, 871-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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