

## Delta(3,5)-delta(2,4)-dienoyl-CoA isomerase (ECH1) monoclonal antibody

Cat. no. A21972

<b>Components:</b>	100 µg monoclonal antibody
<b>Lot no.:</b>	See product label
<b>Clone/PAD:</b>	9D11AF3
<b>Isotype:</b>	Mouse IgG1
<b>Gene ID:</b>	1891
<b>Gene Symbol:</b>	ECH1
<b>Alternative Names:</b>	Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase,, HPXEL, ECH1
<b>Concentration:</b>	1 mg/mL in Hepes-Buffered Saline (HBS) with 0.02% sodium azide as a preservative
<b>mAb PURITY:</b>	Near homogeneity as judged by SDS-PAGE. The antibody was produced <i>in vitro</i> using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
<b>Reactivity:</b>	Human, rat
<b>Validated Applications:</b>	Immunocytochemistry, Immunoprecipitation, In-Cell ELISA
<b>Suggested Working Concentration:</b>	4 µg/mL for Immunocytochemistry (This is a starting working concentration. The optimal antibody concentration should be determined empirically for each specific application.)
<b>Storage:</b>	Store at 2–8°C. Do not freeze.
<b>Expiration Date:</b>	See product label.

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### Target Background:

ECH1 encodes a member of the hydratase/isomerase superfamily and shows high sequence similarity to enoyl-coenzyme A (CoA) hydratases of several species, particularly within the conserved domain characteristic of these proteins. The encoded protein contains a C-terminal peroxisomal targeting sequence and localizes to the peroxisome. The orthologous protein in rat, whose expression is induced by peroxisome proliferators, localizes to the matrix of both the peroxisome and mitochondria and it can isomerize 3-trans,5-cis-dienoyl-CoA to 2-trans,4-trans-dienoyl-CoA. This indicates that the enzyme is a delta(3,5)-delta(2,4)-dienoyl-CoA isomerase and functions in the auxiliary step of the fatty acid beta-oxidation pathway.

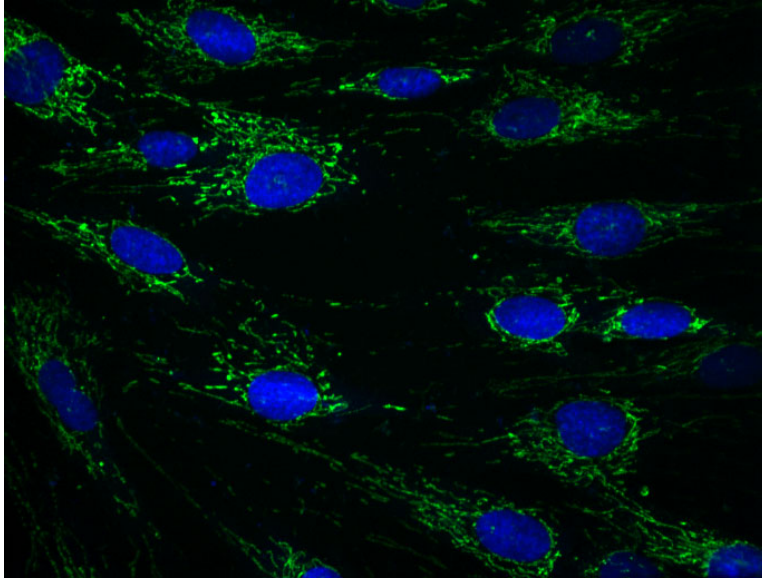


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MP21972 MAN0003235 Rev. date: 3 November 2010



**Immunocytochemistry image of Delta(3,5)-delta(2,4)-dienoyl-CoA isomerase (ECH1) monoclonal antibody.** Human HDFn cells were fixed in 4% paraformaldehyde for 20 minutes and then permeabilized with 0.1% Triton® X-100 for 15 minutes. The cells were incubated with 4 µg/mL of the antibody overnight at 4°C. Alexa Fluor® 488 goat anti-mouse IgG (H+L) was used as a secondary antibody at a 1/1,000 dilution for 1 hour (green). 10% Goat serum was used as the blocking agent for all blocking steps. The cell nuclei were counterstained with DAPI (blue). The target protein locates mainly in mitochondria.

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