

## Product datasheet

### Anti-HADH antibody [1A12BC8] ab110284

4 Images

#### Overview

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<b>Product name</b>	Anti-HADH antibody [1A12BC8]
<b>Description</b>	Mouse monoclonal [1A12BC8] to HADH
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF, IP, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus. This information is considered to be commercially sensitive.
<b>Positive control</b>	MRC5 fibroblasts; Human cerebellum tissue; Human liver mitochondria; HL-60 cells.
<b>General notes</b>	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</p> <p>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.</p> <p>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&amp;As</p> <p>Product was previously marketed under the MitoSciences sub-brand.</p>

#### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
<b>Purity</b>	Proprietary Purification
<b>Purification notes</b>	Purity near homogeneity as judged by SDS-PAGE (purity >95%). The antibody was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
<b>Clonality</b>	Monoclonal

<b>Clone number</b>	1A12BC8
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

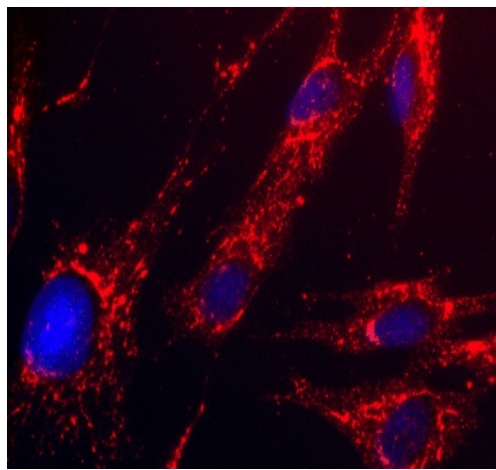
## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab110284 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
IHC-P		1/250. Perform heat mediated antigen retrieval - 1 min pressure cook in 1mmol EDTA pH8.
ICC/IF		Use a concentration of 5 µg/ml.
IP		Use at an assay dependent concentration.
Flow Cyt		Use a concentration of 1 µg/ml. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

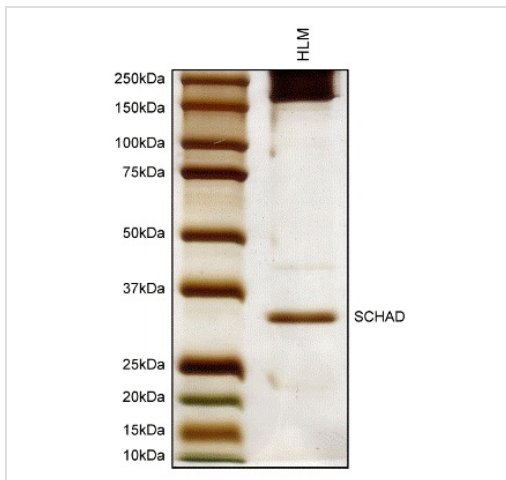
## Target

<b>Function</b>	Plays an essential role in the mitochondrial beta-oxidation of short chain fatty acids. Exerts it highest activity toward 3-hydroxybutyryl-CoA.
<b>Tissue specificity</b>	Expressed in liver, kidney, pancreas, heart and skeletal muscle.
<b>Pathway</b>	Lipid metabolism; fatty acid beta-oxidation.
<b>Involvement in disease</b>	<p>Defects in HADH are the cause of 3-alpha-hydroxyacyl-CoA dehydrogenase deficiency (HADH deficiency) [MIM:231530]. HADH deficiency is a metabolic disorder with various clinical presentations including hypoglycemia, hepatoencephalopathy, myopathy or cardiomyopathy, and in some cases sudden death.</p> <p>Defects in HADH are the cause of familial hyperinsulinemic hypoglycemia type 4 (HHF4) [MIM:609975]; also known as persistent hyperinsulinemic hypoglycemia of infancy (PHHI) or congenital hyperinsulinism. HHF is the most common cause of persistent hypoglycemia in infancy and is due to defective negative feedback regulation of insulin secretion by low glucose levels. It causes nesidioblastosis, a diffuse abnormality of the pancreas in which there is extensive, often disorganized formation of new islets. Unless early and aggressive intervention is undertaken, brain damage from recurrent episodes of hypoglycemia may occur. HHF4 should be easily recognizable by analysis of acylcarnitine species and that this disorder responds well to treatment with diazoxide. It provides the first 'experiment of nature' that links impaired fatty acid oxidation to hyperinsulinism and that provides support for the concept that a lipid signaling pathway is implicated in the control of insulin secretion.</p>
<b>Sequence similarities</b>	Belongs to the 3-hydroxyacyl-CoA dehydrogenase family.
<b>Cellular localization</b>	Mitochondrion matrix.



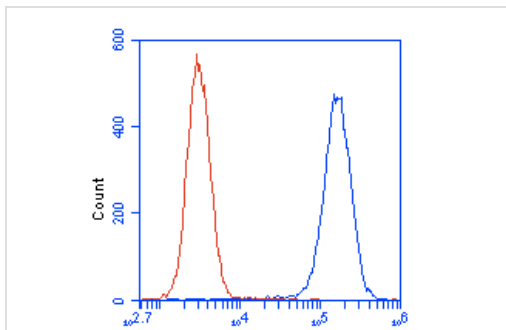
MRC5 fibroblasts labeled with ab110284 at 5µg/ml and stained with Texas Red conjugated to goat anti-mouse secondary.

Immunocytochemistry/ Immunofluorescence - Anti-HADH antibody [1A12BC8] (ab110284)



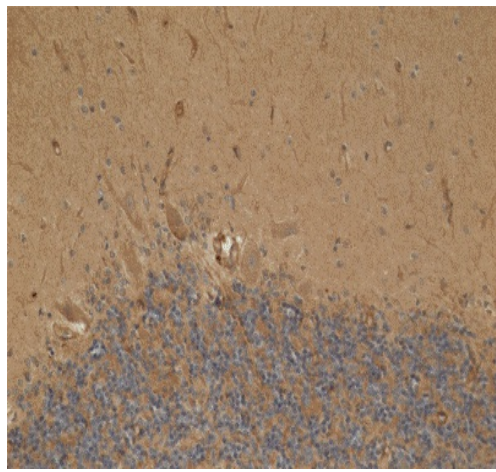
HADH immunocaptured from Human liver mitochondria using ab110284.

Immunoprecipitation - Anti-HADH antibody [1A12BC8] (ab110284)



HL-60 cells were stained with 1 µg/ml ab110284 (blue) or an equal amount of an isotype control antibody (red) and analyzed by flow cytometry.

Flow Cytometry - Anti-HADH antibody [1A12BC8] (ab110284)



ab110284, at 1/250 dilution, staining HADH in formalin-fixed, paraffin-embedded Human cerebellum by Immunohistochemistry. HADH immunoactivity is most intense in neuronal cell bodies, most notably in the large Purkinje cells.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HADH antibody [1A12BC8] (ab110284)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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