

# ALDH5A1 Antibody

*Aldehyde Dehydrogenase 5 A1, Mouse Anti Human  
ABM0031*

## Product Overview

Name ALDH5A1 Antibody

### Description

Aldehyde Dehydrogenase 5 A1, Mouse Anti Human

### Synonyms

Succinate-semialdehyde dehydrogenase mitochondrial, Aldehyde dehydrogenase family 5 member A1, NAD(+)-dependent succinic semialdehyde dehydrogenase, ALDH5A1, SSADH, SSDH.

### Introduction

ALDH5A1 is a mitochondrial NAD(+)-dependent succinic semialdehyde dehydrogenase, which is a member of the aldehyde dehydrogenase family of proteins. The ALDH5A1 protein functions as a mediator to the NADP+-dependent oxidation of aldehydes into acids and has an imperative role in the detoxification of alcohol-derived acetaldehyde, as well as in lipid peroxidation and in the metabolism of corticosteroids, biogenic amines and neurotransmitters.

ALDH5A1 is expressed in various tissues, including the liver, heart, lung, brain, kidney and placenta. Deficiency in the ALDH5A1 enzyme, known as 4-hydroxybutyricaciduria, is a rare inborn error in the metabolism of the neurotransmitter 4-aminobutyric acid (GABA). In response to this defect, physiologic fluids from patients accumulate GHB, which is a compound with numerous neuromodulatory properties.

### Source

Escherichia Coli.

### Physical Appearance

Sterile Filtered colorless solution.

### Formulation

The ALDH5A1 solution (0.5 mg/ml) contains 20mM Tris-HCl buffer(pH 8.0), 10% glycerol 1mM DTT, 0.1M NaCl and 1mM EDTA.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Purity

Greater than 90.0% as determined by SDS-PAGE.

### Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MAGRLAGLSA ALLRTDSFVG GRWLPAAATF PVQDPASGAA LGMVADCGVR  
EARAAVRAAY EAFCRWREVS AKERSSLLRK WYNLMIQNKD DLARIITAES GKPLKEAHGE ILYSAFFLEW  
FSEEARRVYG DIIHTPAKDR RALVLKQPIG VAAVITPWNF PSAMITRKVG AALAAGCTVV VKPAEDTPFS  
ALALAEASQ AGIPSGVYNV IPCSRKNAKE VGEAICTDPL VSKISFTGST TTGKILLHHA ANSVKRVSME  
LGGLAPFIVF DSANVDQAVA GAMASKFRNT GQTCVCSNQF LVQRGIHDAF VKAFAEAMKK NLRVGNGFEE  
GTTQGPLINE KAVEKVEKQV NDAVSKGATV VTGGKRHQLG KNFFEPTLLC NVTQDMLCTH EETFGLAPV  
IKFDTEEEAI AIANAADVGL AGYFYSQDPA QIWRVAEQLE VGMVGVNEGL ISSVECPFGG VKQSGLGREG  
SKYGIDEYLE LKYVCYGGGL.

### **Precautions**

ALDH5A1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.