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ALDH5A1 Human

Catalog #:ENPS-574

For research use only.

Description:ALDH5A1 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 509 amino acids (48-535 a.a.) and having a molecular mass of 54.6kDa. The ALDH5A1 is purified by proprietary chromatographic techniques.

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

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered colorless solution.

Amino Acid Sequence:MGSSHHHHHH SSGLVPRGSH MAGRLAGLSA ALLRTDSFVG GRWLPAAATF PVQDPASGAA LGMVADCGVR EARAAVRAAY EAFCRWREVS AKERSSLLRK WYNLMIQNKD DLARIITAES GKPLKEAHGE ILYSAFFLEW FSEEARRVYG DIIHTPAKDR RALVLKQPIG VAAVITPWNF PSAMITRKVG AALAAGCTVV VKPAEDTPFS ALALAELASQ AGIPSGVYNV IP

Purity: Greater than 90.0% as determined by SDS-PAGE.

Formulation:
The ALDH5A1 solution (0.5 mg/ml) contains 20mM Tris-HCl buffer(pH 8.0), 10% glycerol1mM 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.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

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.

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