
Product Data Sheet

Product Name: ADH5 Human
 Cat. No.: GP21361
 Batch No.: 1

Product Data

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Alcohol dehydrogenase 5 (class III) chi polypeptide; Alcohol dehydrogenase class chi chain; Glutathione-dependent formaldehyde dehydrogenase; S-(hydroxymethyl) glutathione dehydrogenase; FDH; ADHX; ADH-3; FALDH; GSH-FDH; GSNOR; EC 1.1.1.1; EC 1.1.1.284.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSHEMANEVI KCKAAVAWEA GKPLSIEEIE VAPPKAHEVR IKIATAVCH TDAYTLGAD PEGCFPVILG HEGAGIVESV GEGVTCLKAG DTVIPLYIPQ CGECKFCLNP KTNLCQKIRV TQGKGLMPDG TSRFTCKGKT ILHYMGTSTF SEYTVVADIS VAKIDPLAPL DKVCLLGGCI STGYGAAVNT AKLEPGSVCA VFGLGGVGLA VIMGCKVAGA SRIIGVDINK DKFARAKEFG ATECINPQDF SKPIQEVLEI MTDGGVDYSF ECIGNVKVMR AALEACHKGW GVSVVGVAA SGEEIATRPF QLVTGRTWKG TAFGGWKSVE SVPKLVSEYM SKKIKVDEFV THNLSFDEIN KAFELMHSGK SIRTVVKI		
Formulation	The ADH5 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 100mM NaCl, 1mM DTT and 20% glycerol.		

Introduction

ADH5 belongs to the alcohol dehydrogenase family which metabolizes a large selection of substrates, such as retinol, ethanol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. ADH5 has practically no activity for ethanol oxidation, but displays high activity for oxidation of long-chain primary alcohols and for oxidation of S-hydroxymethyl-glutathione, a spontaneous adduct between glutathione and formaldehyde. ADH5 enzyme is a key factor of cellular metabolism for the removal of formaldehyde, a powerful aggravating and alerting mediator which causes pharyngitis, lacrymation, rhinitis and contact dermatitis.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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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.

Background

ADH5 Recombinant produced in E. coli is a single polypeptide chain containing 398 amino acids (1-374) and having a molecular mass of 42.3kDa. ADH5 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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