

## Recombinant Human ADH5 cell lysate

Cat. No. ADH5-30HCL    Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Species        | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description    | <p>This gene encodes a member of the alcohol dehydrogenase family. Members of this family metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. The encoded protein forms a homodimer. It has virtually no activity for ethanol oxidation, but exhibits high activity for oxidation of long-chain primary alcohols and for oxidation of S-hydroxymethyl-glutathione, a spontaneous adduct between formaldehyde and glutathione. This enzyme is an important component of cellular metabolism for the elimination of formaldehyde, a potent irritant and sensitizing agent that causes lacrymation, rhinitis, pharyngitis, and contact dermatitis. The human genome contains several non-transcribed pseudogenes related to this gene.</p> |
| Size           | 100 ul                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Storage Buffer | 1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Applications   | Western Blot;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### GENE INFORMATION

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| Gene Name | ADH5 alcohol dehydrogenase 5 (class III), chi polypeptide [ Homo sapiens ] |
|-----------|----------------------------------------------------------------------------|

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|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b>     | ADH5                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Synonyms</b>            | ADH5; alcohol dehydrogenase 5 (class III), chi polypeptide; FDH, formaldehyde dehydrogenase; alcohol dehydrogenase class-3; ADH 3; ADHX; formaldehyde dehydrogenase; alcohol dehydrogenase class-III; alcohol dehydrogenase class chi chain; S-(hydroxymethyl)glutathione dehydrogenase; glutathione-dependent formaldehyde dehydrogenase; alcohol dehydrogenase (class III), chi polypeptide; FDH; ADH-3; FALDH; GSNOR; GSH-FDH; |
| <b>Gene ID</b>             | <a href="#">128</a>                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>mRNA Refseq</b>         | <a href="#">NM_000671</a>                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protein Refseq</b>      | <a href="#">NP_000662</a>                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>MIM</b>                 | <a href="#">103710</a>                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>UniProt ID</b>          | <a href="#">P11766</a>                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Chromosome Location</b> | 4q23                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Pathway</b>             | Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem; Fatty acid metabolism, organism-specific biosystem; Fatty acid metabolism, conserved biosystem; Glycolysis / Gluconeogenesis, organism-specific biosystem; Glycolysis / Gluconeogenesis, conserved biosystem; Metabolic pathways, organism-specific biosystem;                                            |
| <b>Function</b>            | S-(hydroxymethyl)glutathione dehydrogenase activity; alcohol dehydrogenase (NAD) activity; electron carrier activity; fatty acid binding; formaldehyde dehydrogenase activity; metal ion binding; nucleotide binding; oxidoreductase activity; protein                                                                                                                                                                            |

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homodimerization activity; zinc ion binding;

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