

## ADH1B Protein, Human (His-SUMO)

<b>Cat. No.:</b>	HY-P72071
<b>Synonyms:</b>	ADH beta subunit; ADH1B; ADH1B_HUMAN; ADH2; Alcohol dehydrogenase 1B; alcohol dehydrogenase 2 class I; ; beta polypeptide; Alcohol dehydrogenase 2; Alcohol dehydrogenase subunit beta; Aldehyde reductase; DKFZp686C06125; OTTHUMP00000220192
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P00325 (S2-F375)
<b>Gene ID:</b>	125
<b>Molecular Weight:</b>	Approximately 55.7 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> S T A G K V I K C K   A A V L W E V K K P   F S I E D V E V A P   P K A Y E V R I K M V A V G I C R T D D   H V V S G N L V T P   L P V I L G H E A A   G I V E S V G E G V T T V K P G D K V I   P L F T P Q C G K C   R V C K N P E S N Y   C L K N D L G N P R G T L Q D G T R R F   T C R G K P I H H F   L G T S T F S Q Y T   V V D E N A V A K I D A A S P L E K V C   L I G C G F S T G Y   G S A V N V A K V T   P G S T C A V F G L G G V G L S A V M G   C K A A G A A R I I   A V D I N K D K F A   K A K E L G A T E C I N P Q D Y K K P I   Q E V L K E M T D G   G V D F S F E V I G   R L D T M M A S L L C C H E A C G T S V   I V G V P P A S Q N   L S I N P M L L L T   G R T W K G A V Y G G F K S K E G I P K   L V A D F M A K K F   S L D A L I T H V L   P F E K I N E G F D L L H S G K S I R T   V L T F           </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

## Background

The ADH1B (Alcohol Dehydrogenase 1B (class I),  $\beta$  Polypeptide) gene and its best-known functional alleles, Arg48His (rs1229984, ADH1B\*2) and Arg370Cys (rs2066702, ADH1B\*3), have been investigated in relation to many phenotypic traits; most frequently including alcohol metabolism and alcohol drinking behaviors, but also human evolution, liver function, cancer, and, recently, the comprehensive human phenome. ADH1B is reported to be involved in the metabolic pathways of many compounds besides ethanol, including fatty acids, acetone, epinephrine, glucose, retinol, tyrosine, tryptophan, ifosfamide, cyclophosphamide, abacavir, and celecoxib; and notably, neurotransmitters serotonin and norepinephrine<sup>[1]</sup> [2].

## REFERENCES

- [1]. Renato Polimanti, et al. ADH1B: From alcoholism, natural selection, and cancer to the human phenome. *Am J Med Genet B Neuropsychiatr Genet.* 2018 Mar;177(2):113-125.
- [2]. Liza D Morales, et al. Further evidence supporting a potential role for ADH1B in obesity. *Sci Rep.* 2021 Jan 21;11(1):1932.

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

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