

# Active Recombinant Human SORD Protein

**Cat. No.** SORD-29H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human SORD protein, was expressed in E.coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                    |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | SORD, also known as sorbitol dehydrogenase, is a member of the zinc-containing alcohol dehydrogenase family. It is widely expressed with highest expression in kidney and in the lens of the eye. SORD enzymatically catalyzes the zinc-dependent interconversion of polyols, such as sorbitol and xylitol, to their respective ketoses. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer(pH 8.5) containing 10% glycerol, 1mM DTT                                                                                                                                                                                                                                                                 |
| <b>Bio-activity</b>     | Specific activity is >15 units/mg, and is defined as the amount of enzyme that catalyze the reduction 1.0 umole of D-fructose to D-sorbitol per minute at pH 7.5 at 37C.                                                                                                                                                                 |
| <b>Molecular Mass</b>   | 38.3kDa (357aa)                                                                                                                                                                                                                                                                                                                          |
| <b>AA Sequence</b>      | MAAAAKPNNL SLVVHGPGDL RLENYPIPEP GPNEVLLRMH SVGICGSDVH<br>YWEYGRIGNF IVKKPMVLGH EASGTVEKVG SSVKHLKPGD RVAIEPGAPR<br>ENDEFCKMGR YNLSPSIFFC ATPDDGNLC RFYKHNA AFC YKLPDNTVFE<br>EGALIEPLSV GIHACRRGGV TLGHKVLVCG AGPIGMVTLL VAKAMGAAQV<br>VVTDLSATRL SKAKEIGADL VLQISKESPQ EIARKVEGQL GCKPEVTIEC                                           |

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TGAEASIQAG IYATRSGGTL VLVGLGSEMT TVPLLHAAIR EVDIKGVFRY  
CNTWPVAISM LASKSVNVKP LVTHRFPLEK ALEAFETFKK GLGLKIMLKC  
DPSDQNP

**Purity** >90% by SDS - PAGE

**Storage** Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

**Concentration** 0.5mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [SORD sorbitol dehydrogenase \[ Homo sapiens \]](#)

**Official Symbol** [SORD](#)

**Synonyms** SORD; sorbitol dehydrogenase; L-iditol 2-dehydrogenase; SORD1;

**Gene ID** [6652](#)

**mRNA Refseq** [NM\\_003104](#)

**Protein Refseq** [NP\\_003095](#)

**MIM** [182500](#)

**UniProt ID** [Q00796](#)

**Chromosome Location** 15q15-q21.1

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|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pathway</b>  | Fructose and mannose metabolism, organism-specific biosystem; Fructose and mannose metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; sorbitol degradation I, organism-specific biosystem; |
| <b>Function</b> | L-iditol 2-dehydrogenase activity; L-iditol 2-dehydrogenase activity; NAD binding; metal ion binding; oxidoreductase activity; sugar binding; zinc ion binding; zinc ion binding;                                         |

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