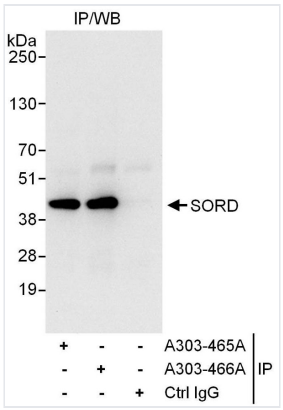
SORD Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SORD, Polyclonal Antibody
Full Product Name	Rabbit anti-SORD Antibody, Affinity Purified
Product Gene Name	anti-SORD antibody
Product Synonym Names	sorbitol dehydrogenase; L-iditol 2-dehydrogenase; HEL-S-95n; epididymis secretory sperm binding protein Li 95n; SORD1; Sorbitol dehydrogenase; sorbitol dehydrogenase
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. Whole IgG. Tris-citrate/phosphate buffer, pH 7 to 8 containing 0.09% Sodium Azide
Purity/Purification	Antigen Affinity Purified
Concentration	1000ug/ml (lot specific)
Preparation and Storage	Store at 2-8 degree C Shelf Life: 1 year from date of receipt
Molecular Weight	10,812 Da
OMIM	182500
3D Structure	ModBase 3D Structure for Q00796
Predicted Reactivity	Sheep, Bovine, Pig, Orangutan
Immunogen	Between 1 and 50
Conjugation	Unconjugated
Product Categories/Family for anti-SORD antibody	Primary Antibodies
Applications Tested/Suitable for anti-SORD antibody	Immunoprecipitation (IP)
Application Notes for anti-SORD antibody	IP: 6ug/mg lysate
Related Product Information for anti-SORD antibody	Sorbitol dehydrogenase (SORD) catalyzes the interconversion of polyols and their corresponding ketoses, and together with aldose reductase, makes up the sorbitol pathway that is believed to play an important role in the development of diabetic complications (summarized by Carr and Markham, 1995 [PubMed 8535074]). The first reaction of the pathway (also called the polyol pathway) is the reduction of glucose to sorbitol by ALDR1 with NADPH as the cofactor. SORD then oxidizes the sorbitol to fructose using NAD(+) cofactor [taken from NCBI Entrez Gene (Gene ID: 6652)].
Other Notes	Small volumes of anti-SORD antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SORD purchase	MBS3903733 is an antibody targeting SORD. Also known as Rabbit anti-SORD Antibody, Affinity Purified. Reactive in Human. Host: Rabbit.



Immunoprecipitation (IP) of anti-SORD antibody
Detection of human SORD by western blot of immunoprecipitates. Samples: Whole cell lysate (1 mg for IP, 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-SORD antibody MBS3903733 used for IP at 6 ug/mg lysate. SORD was also immunoprecipitated by rabbit anti-SORD antibody MBS3903734, which recognizes a downstream epitope. For blotting immunoprecipitated SORD, MBS3903734 was used at 0.4 ug/ml,. Detection: Chemiluminescence with an exposure time of 10 seconds.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SORD. It may not necessarily be applicable to this product.

NCBI GI #	156627571
NCBI GeneID	6652
NCBI Accession #	NP_003095.2
UniProt Primary Accession #	Q00796
UniProt Secondary Accession #	Q16682; Q9UMD6; B2R655; B7Z3A6; J3JZZ5
UniProt Related Accession #	Q00796
GenBank Nucleotide #	NM_003104.5
NCBI Official Full Name	sorbitol dehydrogenase
NCBI Official Synonym Full Names	sorbitol dehydrogenase
NCBI Official Symbol	SORD
NCBI Official Synonym Symbols	SORD1; HEL-S-95n
UniProt Protein Name	Sorbitol dehydrogenase
UniProt Synonym Protein Names	L-iditol 2-dehydrogenase
Protein Family	PTS system sorbose-specific EIID component
UniProt Gene Name	SORD
UniProt Entry Name	DHSO_HUMAN
NCBI Protein Information	sorbitol dehydrogenase; L-iditol 2-dehydrogenase; epididymis secretory sperm binding protein Li 95n
NCBI Summary for SORD	Sorbitol dehydrogenase (SORD; EC 1.1.1.14) catalyzes the interconversion of polyols and their corresponding ketoses, and together with aldose reductase (ALDR1; MIM 103880), makes up the sorbitol pathway that is believed to play an important role in the development of diabetic complications (summarized by Carr and Markham, 1995 [PubMed 8535074]). The first reaction of the pathway (also called the polyol pathway) is the reduction of glucose to sorbitol by ALDR1 with NADPH as the cofactor. SORD then oxidizes the sorbitol to fructose using NAD(+) cofactor.[supplied by OMIM, Jul 2010]

UniProt Comments for SORD	SORD: Converts sorbitol to fructose. Part of the polyol pathway that plays an important role in sperm physiology. May play a role in the sperm motility by providing an energetic source for sperm. Belongs to the zinc-containing alcohol dehydrogenase family. Protein type: EC 1.1.1.14; Oxidoreductase; Carbohydrate Metabolism - fructose and mannose Chromosomal Location of Human Ortholog: 15q15.3 Cellular Component: extracellular space; membrane; mitochondrial membrane Molecular Function: zinc ion binding; L-iditol 2-dehydrogenase activity; carbohydrate binding; NAD binding Biological Process: sperm motility; L-xylitol metabolic process; L-xylitol catabolic process; glucose metabolic process; fructose biosynthetic process; sorbitol catabolic process
Research Articles on SORD	**1.** One of the most striking changes involved sorbitol dehydrogenase, a key enzyme in the polyol pathway. Validation studies revealed dramatically increased sorbitol dehydrogenase concentrations and activity in adenomas and cancer cell lines, along with important changes in the expression of other enzymes in the same (AKR1B1) and related (KHK) pathways.
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