

Product datasheet for **SC118158**

Sorbitol Dehydrogenase (SORD) (NM_003104) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sorbitol Dehydrogenase (SORD) (NM_003104) Human Untagged Clone
Tag:	Tag Free
Symbol:	Sorbitol Dehydrogenase
Synonyms:	HEL-S-95n; RDH; SDH; SORD1; SORDD; XDH
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_003104, the custom clone sequence may differ by one or more nucleotides

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ATGGCGGCGGCGCCAAGCCCAACACCTTCCCTGGTGGTGCACGGACCGGGGACTTGCGCCTGGAGA
ACTATCCTATCCCTGAACCAGGCCAAATGAGGTCTTGCTGAGGATGCATTCTGTTGGAATCTGTGGCTC
AGATGTCCACTACTGGGAGTATGGTCTGAATTGGGAATTTATTGTGAAAAAGCCCATGGTGCTGGGACAT
GAAGCTTCGGGAACAGTCGAAAAAGTGGGATCATCGGTAAGCACCTAAAACCAGGTGATCGTGTGGCCA
TCGAGCCTGGTGCTCCCCGAGAAAATGATGAATTCTGCAAGATGGGCCGATACAATCTGTCACCTCCAT
CTTCTTCTGTGCCACGCCCCCGATGACGGGAACCTCTGCCGGTCTATAAGCACAATGCAGCCTTTTGT
TACAAGCTTCTGACAATGTCACCTTTGAGGAAGGCGCCCTGATCGAGCCACTTTCTGTGGGGATCCATG
CCTGCAGGAGAGGCGGAGTTACCCTGGGACACAAGGTCCTTGTGTGGAGCTGGGCAATCGGGATGGT
CACTTTGCTCGTGGCCAAAGCAATGGGAGCAGCTCAAGTAGTGGTGACTGATCTGTCTGCTACCCGATTG
TCCAAAGCCAAGGAGATTGGGGCTGATTTAGTCCTCCAGATCTCCAAGGAGAGCCCTCAGGAAATCGCCA
GGAAAGTAGAAGGTGAGCTGGGGTGCAAGCCGGAAGTACCATCGAGTGCACGGGGCAGAGGCCTCCAT
CCAGGCGGGCATCTACGCCACTCGCTCTGGTGGGAACCTCGTGCTTGTGGGGCTGGGCTCTGAGATGACC
ACCGTACCCTACTGCATGCAGCCATCCGGGAGGTGGATATCAAGGGCGTGTTCGATACTGCAACACGT
GGCCAGTGGCGATTTGATGCTTGGCTCCAAGTCTGTGAATGTAAAACCCCTCGTACCCATAGGTTTCC
TCTGGAGAAAGCTCTGGAGGCCCTTGAACATTTAAAAAGGGATTGGGGTTGAAAATCATGCTCAAGTGT
GACCCAGTGACCAGAATCCCTGA

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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_003104 unedited</p> <pre>GGTATATTTGTCAATACGCACTCACTATAGGGCGGCCGGAATTCGGCACGAGGACCAGA GCGACCAAACGTCCCAGCCTTCCAGGCCGCACTCCAGAGCCAAAAGAGCTCCATGGCGG CGGCGGCCAAGCCCAACAACCTTCCCTGGTGGTGACGACGGACGGGGGACTTGCGCCTGG AGAACTATCCTATCCCTGAACCAGGCCAAATGAGGTCTTGCTGAGGATGCATTCTGTTG GAATCTGTGGCTCAGATGTCCACTACTGGGAGTATGGTGAATTGGGAATTTTATTGTGA AAAAGCCCATGGTGTGGGACATGAAGCTTCGGGAACAGTCGAAAAAGTGGGATCATCGG TAAAGCACCTAAAACCAGGTGATCGTGTGCCATCGAGCCTGGTGTCCCCGAGAAAATG ATGAATCTGCAAGATGGCCGATACAATCTGTACCTTCCATCTTCTTGTGCCACGC CCCCGATGACGGGAACCTCTGCCGTTCTATAAGCACAATGCAGCCTTTTGTACAAGC TTCCTGACAAATGTCACCTTTGAGGAAGGCGCCCTGATCGAGCCACTTTCTGTGGGATCC ATGCCTGCAGGAGAGGCGGAGTTACCCTGNGACACAAGGTCTTTGTGTGGAGCTGGG CCAATCGGGATGGTCACTTTGCTCGTGGCCAAAGCAATGGGAGCAGCTCAAGTAGTGGT ACTGATCTGTCTGCTACCCGATTGCCAAAGCCAAGGAGAAGGGNGCTGATTTACTCCTC CAGATCTCCAAGGAAGCCCTCAGAAAACCGCCAGGAAAGTAAAAGTCAGCTGGGGTGCCA GCCGGAATCACCATCGAGTGCACGGGGCAGAGCCTCCATCCAGGCGGGCATTACGCCACT CGCTCTGTGGGACCATCTTGCTGTGGGCTGGCTCTTAAAGACACCGAACCCCTATGAT GCGGCCTCG</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_003104 unedited</p> <pre>NGGTACCACCACCAATATTTATTACCCCAAGNCAATCTGAAGAATCGGGCACAAGGGTC ATGGCTTTCCAGGTTACAAGAAAAATCAGAACCTTTCAAACCTACCCTCCACCCATAG CCAAAGTAAGGAATTAAGGCTATAGCTCAAGCTATGTCATGGCTACTATATCCTCATTC TTGATGAATAGTCTCAAAGTCAAGATTGGCATGATGCGATTTAGGTCTAAATCTTACCA GAAAAAAAACCCACCTTAAAATAAGACAAGTTATAGAAATCATTCCAACAGAAAGATA CCAAGAGCCTTTACTGGTAATGAGAAGAGGAAAGATTTTCTGTTATAATAACCAGAAAG AAATGGAATTGTCTAATAACCATCAATTGAGTATGAGCCTAGTTGAGTTGAGTATGAGTC TAGTATGGGATGCTAATCTTCTGGGGTGGGGGAAGTCTGTGAGCTAACCAAACCTCCT GGTCTCTGGTGAAGTCCACAAGTAGCAGTTTCTGGTTGCCTGGTGACAAGGGACCATGC TTAGGGGTGGGCTGGGGCATGTTGGGGAGGGGTCCTTCACTTGGCAAGTGAATAACAC AATTCTCAGAAGCTGTAGAAGAGGCAATCTTCAAACAGTCTGAGTAGTCTCTTACTTTT TTCCACATTANGGAATGCAAACTGGTTTAACTCACATGACATTTCTTTTTTTTGTGT TTGTTTTTTCATTTGATTGGTTTAAAAATTATCCTGGATCCANGAAAGTATGCCCTTTT CTTATTCTCTTTTATCATCAAAACANACAGNCCATATGTTCTCTAGAAACATTGCCGTT CTAAACCGGAAGTGTGACCAGCCTTCCATCCAGACCCTGAGTGGCAGATTTTCATGAAAT AAACCTTCGGGCCAGTTAAGTCTCTCTGCAGCTTTCTTTTCTTACTCAACCCTCATTCCC TTTGGGGCANAGCAGGGGAACCGAAAACCCAGGGCCATTTCTTCCA</pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_003104
Insert Size:	2440 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_003104.3 , NP_003095.1
RefSeq Size:	2628 bp
RefSeq ORF:	1074 bp
Locus ID:	6652
UniProt ID:	Q00796
Cytogenetics:	15q21.1
Domains:	ADH_zinc_N
Protein Families:	Druggable Genome
Protein Pathways:	Fructose and mannose metabolism, Metabolic pathways
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the protein-coding transcript.</p>