

Product datasheet for MR205452

Sord (NM_146126) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sord (NM_146126) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sord
Synonyms:	Sdh-1; Sdh1; Sodh-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205452 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCTCCAGCTAAGGGCGAGAACCTGTCCCTGGTGGTGCACGGACCTGGAGACATCCGCTGGAGA
ACTACCCAATACCTGAGCTCGGCCCAAATGATGTGTTACTAAAGATGCACTCGGTGGGGATTTCGGCTC
AGATGTTCACTACTGGGAGCATGGACGAATTGGGACTTTGTTGTGAAAAAGCCAATGGTCTTGGGCAT
GAGGCTGCTGGAACAGTCACAAAAGTAGGAGAGTTGGTGAACATCTGAAACCAGGAGATCGGGTGGCA
TCGAGCCTGGCGTCCCGGAGAAGTAGATGAGTACTGCAAGATTGGCCGGTACAACCTGACGCCGACTAT
CTTCTTCTGTGCCACGCCCGGATGATGGAAACCTCTGCCGATTCTACAAGCACAATGCTGACTTCTGC
TACAAGCTTCTGACAGTGTCACTTTTGAAGAAGGGCCCTGATTGAACCTCTCTGTGGGGATCTATG
CCTGCCGTCGAGGTTTCAGTTCCCTGGGGAACAAGGTCCTTGTGTGTGGCGCTGGGCCAGTTGGGATGGT
CACTTTGCTTGTGGCCAAAGCAATGGGAGCTGCTCAAGTTGTGGTACTGACCTATCCGCTTCTCGGTTG
ACCAAAGCCAAGGAAGTTGGAGCAGACTTTACCATCCAGGTTGGCAAAGAGACCCCTCAGGAAATGGCA
GTAAGGTGGAAGCCTGCTGGGAAGCAAGCCGGAGGTTACCATTGAGTGACAGGAGCCGAGTCTCCGT
CCAGACGGGCATCTATGCCACTCACTCTGGTGGACCTTGGTGAATGTGGGAATGGGCGCGAGATGGTC
AATTTACCCCTGGTGCACGCAGCATTTCGGGAAGTGGATATCAAAGGCGTGTTCGATCTGCAACACGT
GGCCGATGGCAATTTCCATGCTTGCATCGAAGAGGTTGAATGTAAGCCCTTAGTTACCCACAGATTCCC
CCTGGAGAAGGCAGTTGAAGCCTTTGAAACAGCCAAAAGGGAGTGGGGCTGAAAGTTATGATCAAGTGT
GACCCCAATGACCAAACCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR205452 protein sequence
 Red=Cloning site Green=Tags(s)

MAAPAKGENLSLVHGPDIRLENYPIPELGPNDVLLKMHSVIGICGSDVHYWEHGRIGDFVVKKPMVLGH
 EAAGTVTKVGLVKHLKPGDRVAIEPGVPREVDEYCKIGRYNL TPTIFFCATPPDDGNLCRFYKHADF
 YKLPDSVTFEEGALIEPLSVGIYACRRGSVSLGNKVLVCGAGPVMVMTLLVAKAMGAAQVVVTDLSASRL
 TKAKEVGADFTIQVGKETPQEIASKVESLLGSKPEVTIECTGAESSVQTGIYATHSGGTLVIVGMAEMV
 NLPLVHAAIREVDIKGVFRYCNTPMAISMLASKTLNVKPLVTHRFPLEKAVEAFETAKKGVGLKVMIKK
 DPNDQNP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_146126

ORF Size: 1074 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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_146126.4](#)

RefSeq Size: 2259 bp

RefSeq ORF: 1074 bp

Locus ID: 20322

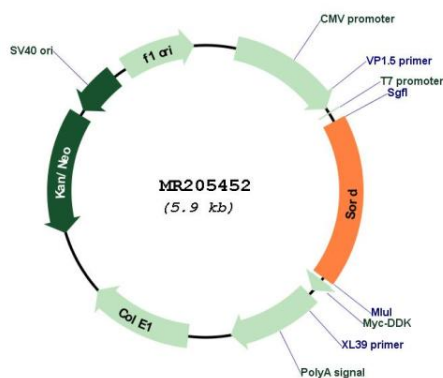
UniProt ID: [Q64442](#)

Cytogenetics: 2 60.59 cM

MW: 38.2 kDa

Gene Summary: Polyol dehydrogenase that catalyzes the reversible NAD(+)-dependent oxidation of various sugar alcohols (By similarity). Is active with D-sorbitol (D-glucitol) leading to the C2-oxidized product D-fructose (PubMed:6852349). Is a key enzyme in the polyol pathway that interconverts glucose and fructose via sorbitol, which constitutes an important alternate route for glucose metabolism (By similarity). May play a role in sperm motility by using sorbitol as an alternative energy source for sperm motility and protein tyrosine phosphorylation (PubMed:1879757). Has no activity on ethanol. Cannot use NADP(+) as the electron acceptor (PubMed:6852349).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205452