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Product datasheet for MG205452

Sord (NM_146126) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sord (NM_146126) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sord
Synonyms:	Sdh-1; Sdh1; Sodh-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG205452 representing NM_146126
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGCTCCAGCTAAGGGCGAGAACCTGTCCCTGGTGGTGCACGGACCTGGAGACATCCGCCTGGAGA
ACTACCCAATACCTGAGCTCGGCCCAAATGATGTGTTACTAAAGATGCACTCGGTGGGGATTTGCGGCTC
AGATGTTCACTACTGGGAGCATGGACGAATTGGGGACTTTGTTGTGAAAAAGCCAATGGTGCTTGGGCAT
GAGGCTGCTGGAACAGTCACAAAAGTAGGAGAGTTGGTGAAACATCTGAAACCAGGAGATCGGGTTGCCA
TCGAGCCTGGCGTTCCCCGAGAAGTAGATGAGTACTGCAAGATTGGCCGGTACAACCTGACGCCGACTAT
CTTCTTCTGTGCCACGCCCCCGGATGATGGAAACCTCTGCCGATTCTACAAGCACAATGCTGACTTCTGC
TACAAGCTTCCTGACAGTGTCACTTTTGAAGAAGGGGCCCTGATTGAACCTCTCTCTGTGGGGATCTATG
CCTGCCGTCGAGGTTCAGTTTCCCTGGGGAACAAGGTCCTTGTGTGTGGCGCTGGGCCAGTTGGGATGGT
CACTTTGCTTGTGGCCAAAGCAATGGGAGCTGCTCAAGTTGTGGTGACTGACCTATCCGCTTCTCGGTTG
ACCAAAGCCAAGGAAGTTGGAGCAGACTTTACCATCCAGGTTGGCAAAGAGACCCCTCAGGAAATTGCCA
GTAAGGTGGAAAGCCTGCTGGGAAGCAAGCCGGAGGTTACCATTGAGTGCACAGGAGCCGAGTCCTCCGT
CCAGACGGGCATCTATGCCACTCACTCTGGTGGGACCTTGGTGATTGTGGGAATGGGCGCCGAGATGGTC
AATTTACCCCTGGTGCACGCAGCCATTCGGGAAGTGGATATCAAAGGCGTGTTTCGATACTGCAACACGT
GGCCGATGGCAATTTCCATGCTTGCATCGAAGACGTTGAATGTAAAGCCCTTAGTTACCCACAGATTCCC
CCTGGAGAAGGCAGTTGAAGCCTTTGAAACAGCCAAAAAGGGAGTGGGGCTGAAAGTTATGATCAAGTGT
GACCCCAATGACCAAAACCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

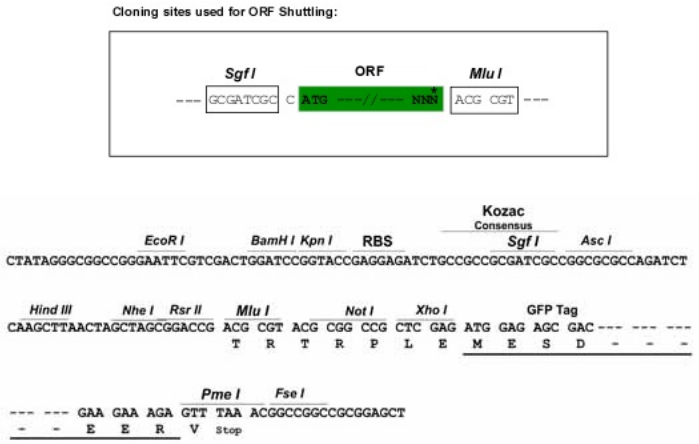
>MG205452 representing NM_146126
Red=Cloning site Green=Tags(s)

MAAPAKGENLSLVVHGPGDIRLENYPIPELGPNDVLLKMHSVGICGSDVHYWEHGRIGDFVVKKPMVLGH
EAAGTVTKVGELVKHLKPGDRVAIEPGVPREVDEYCKIGRYNLTPTIFFCATPPDDGNLCRFYKHNADFC
YKLPDSVTFEEGALIEPLSVGIYACRRGSVSLGNKVLVCGAGPVGMVTLLVAKAMGAAQVVVTDLSASRL
TKAKEVGADFTIQVGKETPQEIASKVESLLGSKPEVTIECTGAESSVQTGIYATHSGGTLVIVGMGAEMV
NLPLVHAAIREVDIKGVFRYCNTWPMAISMLASKTLNVKPLVTHRFPLEKAVEAFETAKKGVGLKVMIKC
DPNDQNP

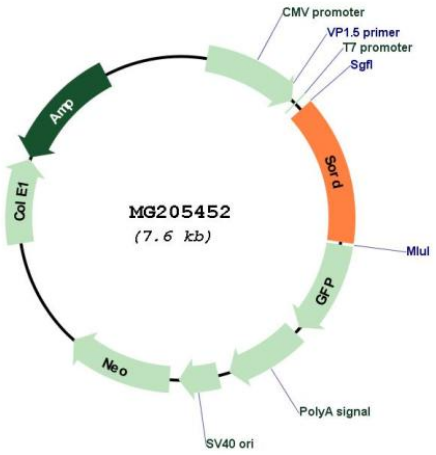
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_146126

ORF Size:	1071 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:	2260 bp
RefSeq ORF:	1074 bp
Locus ID:	20322
UniProt ID:	Q64442
Cytogenetics:	2 60.59 cM
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:18799757). Has no activity on ethanol. Cannot use NADP(+) as the electron acceptor (PubMed:6852349).[UniProtKB/Swiss-Prot Function]