

Recombinant Rat Mdh1 Protein, His&GST-tagged

Cat. No. Mdh1-1770R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Mdh1 Protein (Ser2-Ala334) with N-His&GST tag was expressed in E. coli.
Species	Rat
Source	E.coli
ProteinLength	Ser2-Ala334
Description	This gene encodes an enzyme that catalyzes the NAD/NADH-dependent, reversible oxidation of malate to oxaloacetate in many metabolic pathways, including the citric acid cycle. Two main isozymes are known to exist in eukaryotic cells: one is found in the mitochondrial matrix and the other in the cytoplasm. This gene encodes the cytosolic isozyme, which plays a key role in the malate-aspartate shuttle that allows malate to pass through the mitochondrial membrane to be transformed into oxaloacetate for further cellular processes. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is localized in the peroxisomes.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 66.3 kDa Accurate Molecular Mass: 66 kDa

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Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Mdh1 malate dehydrogenase 1, NAD (soluble) [<i>Rattus norvegicus</i> (Norway rat)]
Official Symbol	Mdh1
Synonyms	MDH1; malate dehydrogenase 1, NAD (soluble); malate dehydrogenase, cytoplasmic; malate dehydrogenase, soluble; cytosolic malate dehydrogenase; Malate dehydrogenase-like enzyme; MDL1; Mdhl; Mor2;
Gene ID	24551
mRNA Refseq	NM_033235

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Protein Refseq NP_150238

UniProt ID O88989



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