

Datasheet for 100-601-145

Malate Dehydrogenase Antibody

Overview

Description:	Anti-Malate Dehydrogenase (Pig Heart) (SHEEP) Antibody - 100-601-145
Item No.:	100-601-145
Size:	2 mL
Applications:	Other, WB
Reactivity:	Pig
Host Species:	Sheep

Product Details

Background:	Catalytic activity of Malate Dehydrogenase is (S)-malate + NAD ⁺ = oxaloacetate + NADH.
Synonyms:	sheep anti-Malate Dehydrogenase Antibody, Malate dehydrogenase cytoplasmic, Cytosolic malate dehydrogenase
Host Species:	Sheep
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	MDH1
Reactivity:	Pig
Immunogen Type:	Native Protein
Immunogen:	Malate Dehydrogenase [Pig Heart]
Purity/Specificity:	This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-sheep serum, purified and partially purified Malate Dehydrogenase [Pig Heart]. Cross reactivity against Malate Dehydrogenase from other tissues and species may occur but have not been specifically determined.
Relevant Links:	UniProtKB - P11708

- [NCBI - P11708.4](#)
- [GeneID - 396894](#)

Application Details

Suggested Applications:	Other, WB (Based on references)
Application Note:	This product has been assayed against 1.0 ug of Malate Dehydrogenase [Pig Heart] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Sheep IgG [H&L] (Goat) code #611-1302 and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid])) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:3,000 to 1:12,000 of the reconstitution concentration is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:20,000
IP:	1:100
WB:	1:500 - 1:5,000

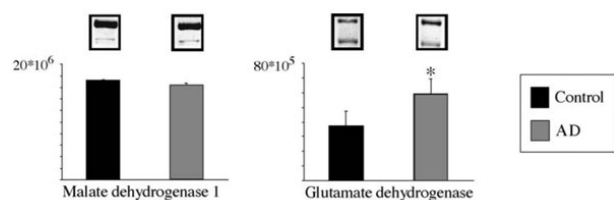
Formulation

Physical State:	Lyophilized
Concentration:	80 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot using Anti-Malate Dehydrogenase (Pig Heart) (SHEEP) Antibody.

Two different molecular weight groups of isoforms were detected for MDH1 at about 36 kDa using Anti-MDH1 (pig heart) 100-601-145 at 1:1500, Fluorescent Cy-5 labelled secondary at 1:500 and for GDH at about 60 kDa using Anti-GDH (bovine liver) 100-4158 at 1:1500, anti-rabbit secondary at 1:500. Light intensities revealed unchanged amount of total soluble MDH1 but increased amount of total soluble GDH in AD when compared to controls. Values of light intensities are given as mean ± S.E.M. *p ≤ 0.05. Fig. 6. PMID: 16298240.

References

- Bonnet M et al. Quantification of biomarkers for beef meat qualities using a combination of Parallel Reaction Monitoring and antibody-based proteomics. *Food Chem.* (2020)
- Gagaoua M et al. Protein Array-Based Approach to Evaluate Biomarkers of Beef Tenderness and Marbling in Cows: Understanding of the Underlying Mechanisms and Prediction. *Foods.* (2020)
- Picard B et al. Beef tenderness and intramuscular fat proteomic biomarkers: Effect of gender and rearing practices. *J Proteomics.* (2019)
- Gagaoua M et al. Reverse phase protein arrays for the identification/validation of biomarkers of beef texture and their use for early classification of carcasses. *Food Chem.* (2018)
- Gagaoua M et al. Reverse Phase Protein array for the quantification and validation of protein biomarkers of beef qualities: The case of meat color from Charolais breed. *Meat Sci.* (2018)
- Picard et al. Beef tenderness and intramuscular fat proteomic biomarkers: muscle type effect. *PeerJ* (2018)
- Gagaoua M et al. The study of protein biomarkers to understand the biochemical processes underlying beef color development in young bulls. *Meat Sci.* (2017)
- Picard et al. Calcium Homeostasis and Muscle Energy Metabolism Are Modified in HspB1-Null Mice. *Proteomes* (2016)
- Gagaoua M et al. Understanding Early Post-Mortem Biochemical Processes Underlying Meat Color and pH Decline in the Longissimus thoracis Muscle of Young Blond d'Aquitaine Bulls Using Protein Biomarkers. *J Agric Food Chem.* (2015)
- Gagaoua M et al. Coherent correlation networks among protein biomarkers of beef tenderness: What they reveal. *J Proteomics.* (2015)
- Picard B et al. Inverse relationships between biomarkers and beef tenderness according to contractile and metabolic properties of the muscle. *J Agric Food Chem.* (2014)
- Guillemin N et al. Functional analysis of beef tenderness. *J Proteomics.* (2011)
- Guillemin N et al. Variations in the abundance of 24 protein biomarkers of beef tenderness according to muscle and animal type. *Animal.* (2011)
- Korolainen MA et al. Oxidative modification of proteins in the frontal cortex of Alzheimer's disease brain. *Neurobiol Aging.* (2006)

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