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Datasheet for 200-4160S

Lipoamide Dehydrogenase Antibody

Overview

Description:	Anti-Lipoamide Dehydrogenase (Porcine Heart) (RABBIT) Antibody - 200-4160S
Item No.:	200-4160S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	Pig
Host Species:	Rabbit

Product Details

Background:	Lipoamide dehydrogenase is a component of the glycine cleavage system as well as an E3 component of the alpha-ketoacid dehydrogenase complexes (pyruvate-, alpha-ketoglutarate-, and branched-chain amino acid-dehydrogenase complex). In monomeric form it has additional moonlighting function as serine protease. It is involved in the hyperactivation of spermatazoa during capacitation and in the spermatazoal acrosome reaction.
Synonyms:	rabbit anti-Lipoamide Dehydrogenase Antibody, Dihydrolipoyl dehydrogenase mitochondrial, Dihydrolipoamide dehydrogenase, Lipoamide Dehydrogenase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DLD LAD
Reactivity:	Pig
Immunogen Type:	Native Protein
Immunogen:	Lipoamide Dehydrogenase [Porcine Heart]

Purity/Specificity:	Anti-Lipoamide Dehydrogenase is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum as well as purified and partially purified Lipoamide Dehydrogenase [Porcine Heart]. Cross reactivity against Lipoamide Dehydrogenase from other tissues and species may occur but have not been specifically determined.
Relevant Links:	• UniProtKB - P09623 • NCBI - 118675 • GeneID - 397129

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-Lipoamide Dehydrogenase has been tested by ELISA and western blot and is assayed against 1.0 ug of Lipoamide Dehydrogenase [Porcine Heart] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Rabbit 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 1:7,000 to 1:30,000 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

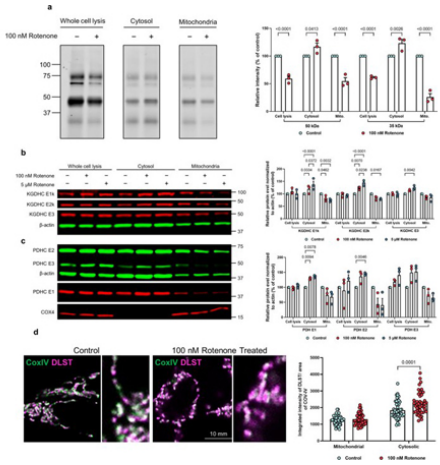
Physical State:	Liquid (sterile filtered)
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice

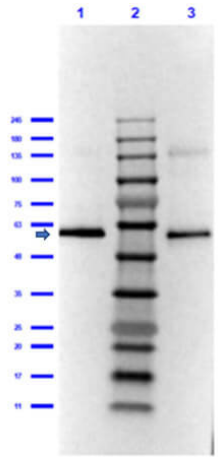
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

a The effects of rotenone (100 nM/20 min) on succinylation in HEK cells. After separation, mitochondrial and non-mitochondrial fractions were immune-precipitated with anti-succinyl lysine antibody and separated by SDS-PAGE followed by western blotting. The data from three different replicate experiments were expressed as the mean with error bars from standard error of the mean (SEM) (n = 3 independent experiments, two-way ANOVA followed by Bonferroni's multiple comparisons test). b The effects of rotenone (100 nM or 5 µM/20 min) on the distribution of KGDHC protein between mitochondria and non-mitochondrial fractions. The data from three different replicate experiments were expressed as the mean with error bars from SEM (n = 3 independent experiments, two-way ANOVA followed by Tukey's multiple comparisons test). c The effects of rotenone (100 nM, 5 µM/20 min) on the distribution of PDHC protein between mitochondria and non-mitochondrial fractions. The data from three different replicate experiments were expressed as the mean with error bars from SEM (n = 3 independent experiments, two-way ANOVA followed by Tukey's multiple comparisons test). d Rotenone induces release of DLST into cytoplasm. In the control conditions, DLST (magenta) was concentrated inside mitochondria defined by COX-IV labeling (green). After 1 h of 100 nM Rotenone treatment, additional DLST labeling was found in the cytoplasm. Inserts on the right are magnified regions. Magenta: DLST; Green: COX-IV; Error bars represent SEM deviation from the mean (n = 98 fields from 19 dishes, two-way ANOVA followed by Bonferroni's multiple comparisons test). Source data are provided as a Source Data file. Fig 4. PMID: 35013160



Western Blot
Western Blot of Rabbit Anti-Lipoamide Dehydrogenase Antibody. Lane 1: Lipoamide Dehydrogenase Reduced [0.05µg]. Lane 2: Opal Prestained Molecular Weight Marker (p/n MB210-0500). Lane 3: Lipoamide Dehydrogenase Non-Reduced [0.05µg]. Primary Antibody: Anti-Lipoamide Dehydrogenase (p/n 200-4160) at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat anti-Rabbit IgG [H&L] HRP (p/n 611-1302) at 1:40,000 for 30mins at RT. Blocking: BlockOut buffer (p/n MB-073) for 1hr at RT. Expected MW: 55kDa. Exp: 10 secs.

References

- Yang Y et al. Altered succinylation of mitochondrial proteins, APP and tau in Alzheimer's disease. *Nat Commun.* (2022)

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