

Datasheet for 200-4160-0100**Lipoamide Dehydrogenase Antibody****Overview**

Description:	Anti-Lipoamide Dehydrogenase (Porcine Heart) (RABBIT) Antibody - 200-4160-0100
Item No.:	200-4160-0100
Size:	100 µg
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](#)
- [GenelD - 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: Lyophilized

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

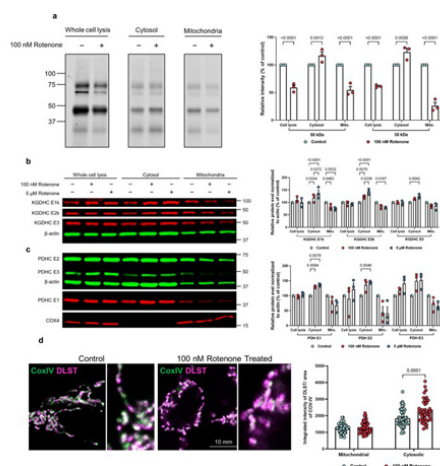
Reconstitution Volume: 100 µL

Reconstitution Buffer: Restore with deionized water (or equivalent)

Shipping & Handling

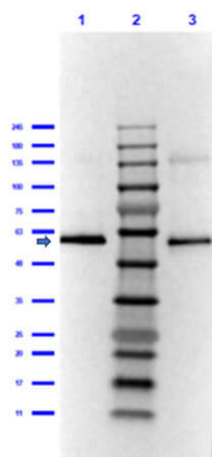
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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

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)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.