ROCKLAND
Immunochemicals for Research

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Product Specification Sheet

Product: Anti-Alcohol Dehydrogenase (Yeast) [Rabbit]

Code: 100-4143 **Lot #** 2074

Size: 2.0 ml **Physical State:** Lyophilized

Antibody Concentration: 90.0 mg/ml (by Refractometry)

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

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at 4° C prior to restoration. Restore with 2.0 ml of deionized water (or equivalent). 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. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of restoration.

Background: Alcohol dehydrogenase is an isozyme that preferentially catalyzes the conversion of acetaldehyde to acetone. Alcohol dehydrogenase has an apparent molecular weight of 37 kDa (monomer subunit) and forms a homotetramer. This enzyme acts on a variety of primary unbranched aliphatic alcohols and requires 2 bound zinc ions per subunit. Alcohol dehydrogenase shows a cytoplasmic localization. Microheterogeneities may also occur at positions 137, 138, 242-244, and 255 and near position 287.

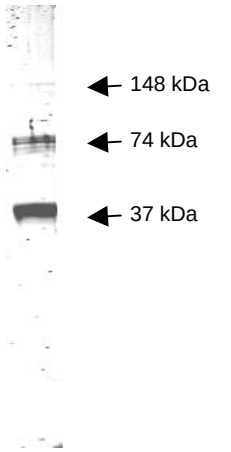

Figure. Western blot analysis with Rockland Immunochemical's Anti-Alcohol Dehydrogenase antibody was used to detect yeast Alcohol Dehydrogenase. Comparison to molecular weight markers (not shown) indicates estimated molecular weights consistent with monomer, dimer and tetramer present in this preparation. The blot was incubated with a 1:500 dilution of the antibody at room temperature for 2 h followed by detection using IRDye™800 labeled Goat-a-Rabbit IgG [H&L] (611-132-122) diluted 1:5,000 for 45 min at room temperature. The IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Application Note(s): This antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 37 kDa in size corresponding to monomeric alcohol dehdrogenase by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:5,000 - 1:25,000
WESTERN BLOT	1:500 - 1:2,000
IF MICROSCOPY	User Optimized
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against purified and partially purified Alcohol Dehydrogenase [Yeast]. Cross reactivity against Alcohol Dehydrogenase from most fungal sources is likely due to sequence homology as determined by BLAST analysis. Cross reactivity with Alcohol Dehydrogenase from other sources is unknown.

Relevant Link(s): Swiss Prot: P00330 NCBI Link P00332

Protein Sequence: Yeast Alcohol Dehydrogenase, 347 aa, predicted MW 36.7 kDa

1	mtipdkqlaa	vfhthggpen	vkfeevpvae	pgqdevlvni	kytgvchtdl	halqgdwplp
61	akmpligghe	gagvvvkvga	gvtrlkigdr	vgvkwmnssc	gnceycmkae	eticphiqls
121	gytvdgtfqh	ycianathat	iipesvplev	aapimcagit	cyralkeskv	gpgewicipg
181	aggglghlav	qyakamamrv	vaidtgddka	elvksfgaev	fldfkkeadm	ieavkaatng
241	gahgtlvlst	spksyeqaag	farpgstmvt	vsmpagaklg	adifwltvkm	lkicgshvgn
301	ridsiealey	vsrglvkpyy	kvqpfstlpd	vyrlmhenki	agrivldlsk	

Immunogen: This antibody was prepared from whole rabbit serum produced by repeated immunizations with full length Alcohol Dehydrogenase isolated from yeast.

General References:

Russell,P.R. and Hall,B.D. (1983) The primary structure of the alcohol dehydrogenase gene from the fission yeast Schizosaccharomyces pombe. *J. Biol. Chem*. **258** (1), 143-149 (1983)

Related Products:

#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
#MB-070	Blocking Buffer for Fluorescent Western Blotting
#KIA-003	***Max*Tag**™ Anti-RABBIT IgG Kit for Immunoblotting
#MB-070	Blocking Buffer for Fluorescent Western Blotting

USDA Certification: 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.

Note: 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.