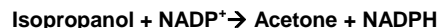


# Active NADP-dependent Isopropanol Dehydrogenase (ADH1-NADP)

<b>CATALOG #:</b>	7605-200	200 µg
	7605-1000	1 mg
<b>ALTERNATE NAMES:</b>	Alcohol dehydrogenase (ADH1), NADP-dependent	
<b>SOURCE:</b>	<i>E. coli</i>	
<b>SEQUENCE:</b>	Full-length NADP-dependent isopropanol dehydrogenase (360 amino acids) with N-terminal His-tag	
<b>PURITY:</b>	≥95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	~40.9 kDa (SDS-PAGE)	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	1 mg/mL solution in 50 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl and 50% glycerol	
<b>STORAGE CONDITIONS:</b>	Aliquot and store at -20 °C. Avoid repeated freeze thaw cycles.	

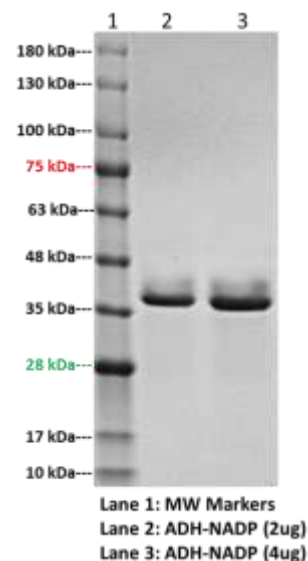
**DESCRIPTION:** NADP-dependent isopropanol dehydrogenase belongs to the superfamily of alcohol dehydrogenases with a preference for medium chain secondary alcohols, such as 2-butanol and isopropanol, while it has low activity with primary alcohols, such as ethanol. Under physiological conditions, the enzyme reduces aldehydes and 2-ketones to produce secondary alcohols. It is also active with acetaldehyde and propionaldehyde.

**BIOLOGICAL ACTIVITY:** This NADP-dependent isopropanol dehydrogenase has biological activity ≥60U/mg based on the following reaction using BioVision kit (#K698-100):

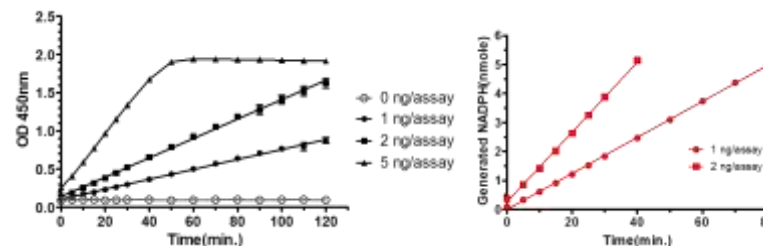


BioVision's NADP/NADPH quantification colorimetric kit (#K347-100) can also be used to test the activity of NADP-dependent isopropanol dehydrogenase.

**UNIT DEFINITION:** One unit is the amount of enzyme that will generate 1.0 µmole of NADPH per minute at pH 8 at 37 °C.



**SDS-PAGE (4-20%) of Recombinant NADP-dependent Isopropanol Dehydrogenase:** Recombinant Protein loaded under reducing conditions and stained with Coomassie Blue. The protein shows a predicted MW of ~40.9 kDa.



**NADP-dependent Isopropanol Dehydrogenase Enzymatic Activity:** Active enzyme reacts with 7% isopropanol in 150 µl assay buffer containing NADP<sup>+</sup> at pH 8 at 37 °C.

## RELATED PRODUCTS:

- Alcohol Dehydrogenase (NADP-dependent) Activity Colorimetric Assay Kit (**Cat. No. K698-100**)
- NADP/NADPH Quantification Colorimetric Kit (**Cat. No. K347-100**)
- ADH Antibody (**Cat. No. 3647-100**)
- ADH Antibody (**Cat. No. 5605-100**)

**FOR RESEARCH USE ONLY! Not to be used on humans.**