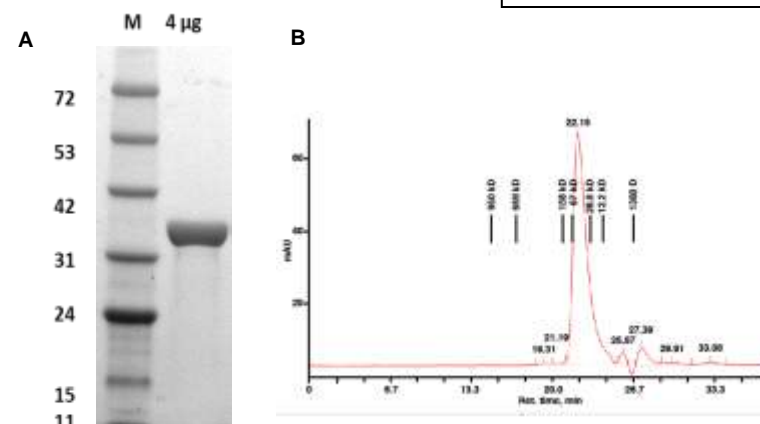


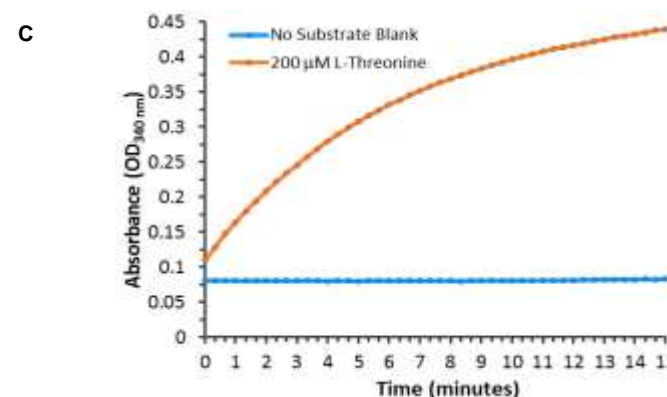
# Threonine Dehydrogenase, Recombinant

<b>CATALOG NO:</b>	P1256-60	60 µg
	P1256-150	150 µg
<b>ALTERNATE NAMES:</b>	ThrDH	
<b>SOURCE:</b>	<i>E.coli</i>	
<b>SEQUENCE:</b>	Protein sequence from <i>Cupriavidus necator</i> (NBRC 102504)	
<b>PURITY:</b>	> 95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	36.8 kDa, His tag	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Proprietary buffer	
<b>RECONSTITUTION:</b>	Reconstitute in distilled H <sub>2</sub> O	
<b>STORAGE CONDITIONS:</b>	Store the lyophilized protein at -20°C. Reconstituted enzyme can be stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.	
<b>DESCRIPTION:</b>	Threonine dehydrogenase (EC 1.1.1.103) is a β-NAD <sup>+</sup> coenzyme dependent enzyme, from the group of short chain alcohol dehydrogenases. It is a key enzyme in L threonine catabolism in microorganisms and mammals. The enzyme catalyzes conversion of L-threonine to 2-amino-3 ketobutyrate, with simultaneous reduction of NAD <sup>+</sup> .	
<b>SPECIFIC ACTIVITY:</b>	Specific activity is ≥ 2 U/mg	
<b>UNIT DEFINATION:</b>	One unit of Threonine dehydrogenase converts 1 µmole of L-threonine into 2-amino-3-oxobutyrate, with concomitant reduction of β-NAD <sup>+</sup> to NADH, per minute at 25°C and pH 8.5.	



**Fig A. SDS-PAGE (4-20%) of recombinant ThrDH:** Recombinant Protein loaded under reducing conditions and stained with Coomassie Blue.

**Fig B. Size exclusion chromatography of ThrDH:** SEC analysis of Threonine Dehydrogenase using a Superose 6 Increase 5x150 column 50 mM sodium phosphate; 0.3 M NaCl pH 7.2 at 100 µl/min



**Fig C. Activity of Active ThrDH:** Specific Activity of Threonine Dehydrogenase is ≥2 U/mg. In this reaction 1 µg of ThrDH converts L-Threonine into 2-amino-3-oxobutyrate with concomitant reduction of NAD<sup>+</sup> which was measured at 340 nm.

## RELATED PRODUCTS:

- DL-Serine Assay Kit (Cat. No. K988-100)
- L-Amino Acid Quantitation Colorimetric/Fluorometric Kit (Cat. No. K639-100)

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