Creative Enzymes®

3-hydroxy acid dehydrogenase

Cat. No. EXWM-0300

Lot. No. (See product label)

Introduction

Description	The enzyme, purified from the bacterium Escherichia coli and the yeast Saccharomyces cerevisiae, shows activity with a range of 3- and 4-carbon 3-hydroxy acids. The highest activity is seen with L-allo-threonine and D-threonine. The enzyme from Escherichia coli also shows high activity with L-serine, D-serine, (S)-3-hydroxy-2-methylpropanoate and (R)-3-hydroxy-2-methylpropanoate. The enzyme has no activity with NAD+ or L-threonine (cf. EC 1.1.1.103, L-threonine 3-dehydrogenase).
Synonyms	ydfG (gene name); YMR226c (gene name)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.1.1.381
Reaction	L-allo-threonine + NADP+ = aminoacetone + CO2 + NADPH + H+ (overall reaction); (1a) L-allo-threonine + NADP+ = L-2-amino-3-oxobutanoate + NADPH + H+; (1b) L-2-amino-3-oxobutanoate = aminoacetone + CO2 (spontaneous)
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.