

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.