Creative Enzymes®

2-hydroxy-4-carboxymuconate semialdehyde hemiacetal dehydrogenase

Cat. No. EXWM-0224

Lot. No. (See product label)

Introduction

Description The enzyme does not act on unsubstituted aliphatic or aromatic aldehydes or glucose; NAD+ can replace NADP+, but with lower affinity. The enzyme was initially believed to act on 4-carboxy-2-hydroxy-cis,cis-muconate 6-semialdehyde and produce 4-carboxy-2-hydroxy-cis,cis-muconate. However, later studies showed that the substrate is the hemiacetal form, and the product is 2-oxo-2H-pyran-4,6-dicarboxylate.

Synonyms 2-hydroxy-4-carboxymuconate 6-semialdehyde dehydrogenase; 4-carboxy-2-hydroxy-cis,cis-muconate-6-semialdehyde:NADP+ oxidoreductase; α-hydroxy-γ-carboxymuconic ε-semialdehyde dehydrogenase; 4-carboxy-2-hydroxymuconate-6-semialdehyde dehydrogenase; LigC; ProD

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.1.1.312

Reaction 4-carboxy-2-hydroxymuconate semialdehyde hemiacetal + NADP+ = 2-oxo-2H-pyran-4,6-dicarboxylate + NADPH + H+

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 ℃.