Creative Enzymes®

L-galactonolactone dehydrogenase

Cat. No. EXWM-1370

Lot. No. (See product label)

Introduction

Description	This enzyme catalyses the final step in the biosynthesis of L-ascorbic acid in higher plants and in nearly all higher animals with the exception of primates and some birds. The enzyme is very specific for its substrate L-galactono-1,4-lactone as D-galactono-γ-lactone, D-gulono-γ-lactone, L-gulono-γ-lactone, D-erythronic-γ-lactone, D-xylonic-γ-lactone, L-mannono-γ-lactone, D-galactonate, D-glucuronate and D-gluconate are not substrates. FAD, NAD+, NADP+ and O2 (cf. EC 1.3.3.12, L-galactonolactone oxidase) cannot act as electron acceptor.
Synonyms	galactonolactone dehydrogenase; L-galactono-γ-lactone dehydrogenase; L-galactono-γ-lactone:ferricytochrome-c oxidoreductase; GLDHase; GLDase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.3.2.3
CAS No.	9029-02-1
Reaction	L-galactono-1,4-lactone + 4 ferricytochrome c = L-dehydroascorbate + 4 ferrocytochrome c + 4 H+ (overall reaction); (1a) L-galactono-1,4-lactone + 2 ferricytochrome c = L-ascorbate + 2 ferrocytochrome c + 2 H+; (1b) L-ascorbate + 2 ferricytochrome c = L-dehydroascorbate + 2 ferrocytochrome c + 2 H+ (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 ℃.