

## 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<sup>+</sup>, NADP<sup>+</sup> and O<sub>2</sub> (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 ferrocyanochrome c + 4 H<sup>+</sup> (overall reaction); (1a) L-galactono-1,4-lactone + 2 ferricytochrome c = L-ascorbate + 2 ferrocyanochrome c + 2 H<sup>+</sup>; (1b) L-ascorbate + 2 ferricytochrome c = L-dehydroascorbate + 2 ferrocyanochrome c + 2 H<sup>+</sup> (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.