

Uronate dehydrogenase (EC 1.1.1.203), *Agrobacterium tumefaciens*

Catalogue number:

AE00191, 24 kU (8 mL)

Description

Recombinant uronate dehydrogenase (EC 1.1.1.203) is purified from a modified *E. coli* strain. Involved in aldohexuronate catabolism, uronate dehydrogenase is an enzyme that catalyzes specifically the reduction of D-glucuronate or D-galacturonate to D-glucarate or D-galactarate, respectively, with concomitant oxidation of NAD⁺ to NADH. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD⁺ or NADP⁺ as acceptor. The systematic name of this enzyme class is uronate:NAD⁺ 1-oxidoreductase. Other names in common use include uronate: NAD-oxidoreductase, and uronic acid dehydrogenase.

The enzyme is provided in 3.2 M ammonium sulphate.

Purity

Uronate has been determined to be >95% pure, according to SDS polyacrylamide gel electrophoresis (PAGE) followed by Blue Safe staining (Figure 1).

Storage temperature

Uronate dehydrogenase should be stored at 2 °C to 8 °C.

Temperature and pH optimum

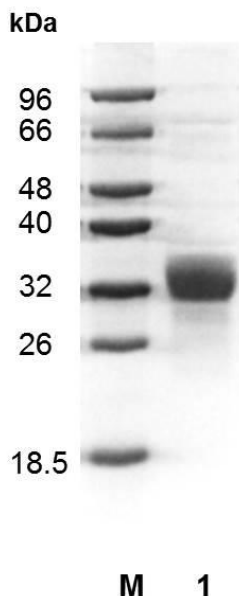
The optimum pH and temperature are 8.0 and 37 °C, respectively.

Specific activity

3000 U/ml.

Unit definition

One Unit of uronate dehydrogenase was defined as the amount enzyme required to produce 1 μmole of NADH from NAD⁺, in a reaction mixture containing 200mM Tris-HCl buffer, pH 8.0, 10 mM D-glucuronic acid and 2.1 mM NAD⁺, at 25°C.



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Figure 1. SDS-PAGE analysis of *A. tumefaciens* uronate dehydrogenase. Electrophoresis was performed using a 14% polyacrylamide gel. Lane M, molecular weight marker; Lane 1, purified uronate dehydrogenase (31.14 kDa).

Certificate of Analysis

Test	Criteria	Result
Protein purity	Purity in line with the stated value	Meets specification
Activity	Activity in line with the stated value	Meets specification

Approved by:



Patrícia Ponte
Senior Manager, Quality Systems

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