

glucose 1-dehydrogenase (PQQ, quinone)

Cat. No. EXWM-0430

Lot. No. (See product label)

Introduction

Description

Integral membrane protein containing PQQ as prosthetic group. It also contains bound ubiquinone and Mg^{2+} or Ca^{2+} . Electron acceptor is membrane ubiquinone but usually assayed with phenazine methosulfate. Like in all other quinoprotein alcohol dehydrogenases the catalytic domain has an 8-bladed propeller structure. It occurs in a wide range of bacteria. Catalyses a direct oxidation of the pyranose form of D-glucose to the lactone and thence to D-gluconate in the periplasm. Oxidizes other monosaccharides including the pyranose forms of pentoses.

Synonyms

quinoprotein glucose dehydrogenase; membrane-bound glucose dehydrogenase; mGDH; glucose dehydrogenase (PQQ-dependent); glucose dehydrogenase (pyrroloquinoline-quinone); quinoprotein D-glucose dehydrogenase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.1.5.2

CAS No.

81669-60-5

Reaction

D-glucose + ubiquinone = D-glucono-1,5-lactone + ubiquinol

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.