Creative Enzymes®

Native Aspergillus sp. Glucose Oxidase

Cat. No. DIA-193

Lot. No. (See product label)

Introduction

Description	The glucose oxidase enzyme (GOx) also known as notatin (EC number 1.1.3.4) is an oxido-reductase that catalyses the oxidation of glucose to hydrogen peroxide and D-glucono-δ-lactone. This enzyme is produced by certain species of fungi and insects and displays antibacterial activity when oxygen and glucose are present.
Applications	This enzyme is useful for enzymatic determination of glucose, and for amylase-activity assay when coupled with α-glucosidase in clinical analysis.
Synonyms	EC 1.1.3.4; glucose oxyhydrase; corylophyline; penatin; glucose aerodehydrogenase; microcid; β-D-glucose oxidase; D-glucose oxidase; D-glucose-1-oxidase; β-D-glucose:quinone oxidoreductase; glucose oxyhydrase; deoxin-1; GOD; 9001-37-0; glucose oxidase enzyme; GOx; notatin; glucose oxidase

Product Information

Source	Aspergillus sp.
Appearance	Yellowish amorphous powder, lyophilized
Form	Freeze dried powder
EC Number	EC 1.1.3.4
CAS No.	9001-37-0
Molecular Weight	approx. 153 kDa
Activity	GradeⅡ 100U/mg-solid or more (containing approx. 50% of stabilizers)
Contaminants	Catalase < 3.0%
pH Stability	pH 4.5-6.0 (30°C, 20hr)
Optimum pH	4.5
Thermal stability	below 50°C (pH 5.7, 1hr)
Optimum temperature	40-50°C
Michaelis Constant	3.3×10^{-2}M (ß-D-Glucose), 6.1×10^{-2}M (2-Deoxyglucose)
Structure	Glycoprotein with 2 moles of FAD
Inhibitors	p-Chloromercuribenzoate, heavy metal ions (Cu^{++}, Hg^{++}, Ag^{+})
Stabilizers	Potassium gluconate, sodium glutamate

Storage and Shipping Information

Stability	Stable at-20°C for at least one year