

Native *Aspergillus* sp. Glucose Oxidase

Product Information

Cat#	DIA-193
Abbr	GOD (<i>Aspergillus</i> sp.)
Alias	GOx; GOD
Similar	GOD
Source	<i>Aspergillus</i> sp.
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.
Appearance	Yellowish amorphous powder, lyophilized
Form	Freeze dried powder
Enzyme Commission Number	EC 1.1.3.4
Activity	100U/mg-solid or more (containing approx. 50% of stabilizers)
CAS No.	9001-37-0
Contaminants	Catalase < 3.0%
Molecular Weight	approx. 153 kDa
pH Stability	pH 4.5-6.0 (30°C, 20hr)
Michaelis Constant	$3.3 \times 10^{-2} \text{M}$ (β -D-Glucose), $6.1 \times 10^{-2} \text{M}$ (2-Deoxyglucose)
Structure	Glycoprotein with 2 moles of FAD
Optimum pH	4.5



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Optimum temperature	40-50°C
Thermal stability	below 50°C (pH 5.7, 1hr)
Stability	Stable at -20°C for at least one year
Stabilizers	Potassium gluconate, sodium glutamate
Inhibitors	p-Chloromercuribenzoate, heavy metal ions (Cu ⁺⁺ , Hg ⁺⁺ , Ag ⁺)
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

Tel: 1-631-562-8517 1-516-512-3133

Email: info@creative-enzymes.com

Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA