

## Native *Aspergillus* sp. Glucose Oxidase

### Product Information

<b>Cat#</b>	DIA-193
<b>Abbr</b>	GOD ( <i>Aspergillus</i> sp.)
<b>Alias</b>	GOx; GOD
<b>Similar</b>	GOD
<b>Source</b>	<i>Aspergillus</i> sp.
<b>Description</b>	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- $\delta$ -lactone. This enzyme is produced by certain species of fungi and insects and displays antibacterial activity when oxygen and glucose are present.
<b>Applications</b>	This enzyme is useful for enzymatic determination of glucose, and for amylase-activity assay when coupled with $\alpha$ -glucosidase in clinical analysis.
<b>Appearance</b>	Yellowish amorphous powder, lyophilized
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 1.1.3.4
<b>Activity</b>	100U/mg-solid or more (containing approx. 50% of stabilizers)
<b>CAS No.</b>	9001-37-0
<b>Contaminants</b>	Catalase < 3.0%
<b>Molecular Weight</b>	approx. 153 kDa
<b>pH Stability</b>	pH 4.5-6.0 (30°C, 20hr)
<b>Michaelis Constant</b>	$3.3 \times 10^{-2} \text{M}$ ( $\beta$ -D-Glucose), $6.1 \times 10^{-2} \text{M}$ (2-Deoxyglucose)
<b>Structure</b>	Glycoprotein with 2 moles of FAD
<b>Optimum pH</b>	4.5



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

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