

# Active Recombinant Aspergillus Niger Glucose Oxidase, API grade

Cat. No. GOD-09A Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	API grade Active Recombinant Aspergillus Niger Glucose Oxidase was purified from Yeast
<b>Species</b>	Aspergillus Niger
<b>Source</b>	Yeast
<b>ProteinLength</b>	Full length
<b>Description</b>	<p>Glucose oxidase (GOX) is a flavoprotein that exists as a dimer composed of two identical subunits, each with a molecular weight of 80 kDa. Each subunit contains one flavin adenine dinucleotide (FAD) moiety and one iron atom. The enzyme is a glycoprotein containing approximately 16% neutral sugars and 2% amino sugars. Additionally, the enzyme has three cysteine residues and eight potential sites for N-linked glycosylation. Glucose oxidase can oxidize D-hexoses, monodeoxy-D-glucose, and methyl-D-glucose at different rates. It does not require any activators but is inhibited by Ag<sup>+</sup>, Hg<sup>2+</sup>, Cu<sup>2+</sup>, phenylmercuric acetate, and p-chloromercuribenzoate. It is not inhibited by non-metallic SH reagents such as N-ethylmaleimide, iodoacetate, and iodoacetamide.</p>
<b>CAS</b>	9001-37-0
<b>Form</b>	Yellow or pale yellow lyophilized powder

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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



<b>Molecular Mass</b>	153 kDa
<b>Bio-activity</b>	> 250 U/mg
<b>PI</b>	4.5
<b>pH</b>	4.5–6.0
<b>Optimal temperature</b>	40–50 centigrade
<b>Water content</b>	0.033
<b>Protein content</b>	>95%
<b>Unit Definition</b>	One unit (U) of the enzyme is defined as the amount required to oxidize 1.0 $\mu$ mol of $\beta$ -D-glucose to D-gluconic acid and hydrogen peroxide per minute under the conditions of pH 5.1 and 35 centigrade.
<b>Purity</b>	> 96%
<b>Reconstitution</b>	Dissolve to 5 mg/mL in potassium phosphate buffer.
<b>GENE INFORMATION</b>	
<b>Official Symbol</b>	0
<b>Synonyms</b>	GOD; Glucose Oxidase
<b>Gene ID</b>	0

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