

Product Specification Sheet

Product Name: Glucose Oxidase (EC 1.1.3.4)

Catalog Number: FSB5002

Lot Number: 12B06

Description

Glucose Oxidase from *Aspergillus niger* catalyzes the oxidation of β -D-glucose to D-gluconolactate and hydrogen peroxide.

Product Information

Quantity:	50 KUnits
Specific Activity:	>250 U/mg
Purity:	>95% by SDS-PAGE
Molecular Weight:	65.5 kDa
Ext. coefficient:	1.47 (1 mg/mL at 280 nm in H ₂ O)
Theoretical PI:	4.2
Storage:	Format: Lyophilized powder Temperature: 2-8°C. Stability: 1 year
Unit Definition:	One unit is defined as the quantity of enzyme that will hydrolyze one μ mole of D-glucose to D-gluconolactate and hydrogen peroxide per minute at 35°C and a pH 5.5.

For research use only. Not for use in humans.

Activity Assay

To determine the activity of glucose oxidase, horseradish peroxidase is used as a coupling enzyme for measuring the peroxide produced when glucose oxidase oxidizes β -D-glucose to D-gluconolactate and hydrogen peroxide. This assay can be done with our RTB Hydrogen Peroxide Assay (FSB3001) or any peroxide detection method.

Reagents:

<u>D-Glucose</u>	10% (w/v) D-Glucose (in water)
<u>GoX</u>	Glucose Oxidase (0.5 mg/mL in sterile water)
<u>RTB-HRP Assay</u>	Foresight Biosciences – RTB Hydrogen Peroxide Assay (FSB3001)

Protocol

1. Pipette 190 μ l of the D-Glucose solution into 2 labeled tubes for each sample and reagent blank.
2. At zero time, add 10 μ l of the Enzyme Preparation (use 10 μ l distilled water for the reagent blank) to each tube.
3. Allow the tubes to incubate at 35°C for 5 minutes.
4. The reactions can then be combined with the RTB reagent to determine the amount of peroxide produced. (Follow instruction in FSB3001 manual).

References

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