

## Glucose oxidase, Enzyme Activity

Catalog	Unit
TBP0022-10KU	10000 U
TBP0022-50KU	50000 U

### Preparation and Specification

Appearance: Yellowish amorphous powder, lyophilized

Activity: Grade I: 180U/mg-solid or more, Grade II: 100U/mg-solid or more (containing approx. 50% of stabilizers)

Contaminant: Catalase, Grade I  $\leq 5.0 \times 10^{-3}\%$ , Grade II  $\leq 3.0\%$

Stabilizers: Potassium gluconate, sodium glutamate

### Properties

Stability: Stable at  $-20^{\circ}\text{C}$  for at least 3 years

Molecular weight: approx. 153,000

Michaelis constants:  $3.3 \times 10^{-2}\text{M}$  ( $\beta$ -D-Glucose),  $6.1 \times 10^{-2}\text{M}$  (2-Deoxyglucose)

Structure: Glycoprotein with 2 moles of FAD

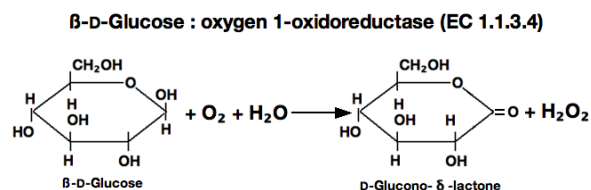
Inhibitors: p-Chloromercuribenzoate, heavy metal ions ( $\text{Cu}^{++}$ ,  $\text{Hg}^{++}$ ,  $\text{Ag}^{+}$ )

Optimum pH: 4.5

Optimum temperature:  $40\text{-}50^{\circ}\text{C}$

pH Stability: pH 4.5-6.0 ( $30^{\circ}\text{C}$ , 20hr)

Thermal stability: below  $50^{\circ}\text{C}$  (pH 5.7, 1hr)



### Applications

This enzyme is useful for enzymatic determination of glucose, and for amylase-activity assay when coupled with  $\alpha$ -glucosidase (AGH-211, if maltooligosaccharide or modified starch is used as a substrate) in clinical analysis.

For research use only