



Fructosyl-amino acid oxidase

ORIGIN: *Recombinant E-coli*

CAT#: FAO-70-1331-01

EC#: 1.5.3

SPECIFICATIONS

Appearance: Yellow lyophilizate

Activity: ≥ 4.0 U/mg lyophilizate

ASSAY PRINCIPLE

fructosyl-amino oxidase catalyzes the following reaction:



The appearance of quinoneimine dye is measured spectrophotometrically at 555 nm.

APPLICATION

The enzyme is useful for the determination of fructosyl-L-amino acid.

UNIT DEFINITION

One unit (U) is defined as the amount of enzyme which produces 1 μmol of hydrogen peroxide per min at 30°C and pH 8.0 under the assay conditions.

CHARACTERISTICS

Molecular weight: ca. 45 kDa (gel filtration)

Structure: monomer of 50 kDa (SDS-PAGE)

Michaelis constant: 2.2×10^{-4} M (N^ε-fructosyl-L-lysine)

pH Optimum: 8.0–8.5

pH Stability: 6.0–8.5

Optimum temperature: 35–40°C

Thermal stability: below 30°C

Inhibitor: Ag⁺, Cu²⁺

Specificity: N^ε-fructosyl-L-lysine (100), fructosyl-L-valine (65), fructosyl-glycine (30)

Fructosyl-amino acid oxidase

Figure -1 pH Optimum

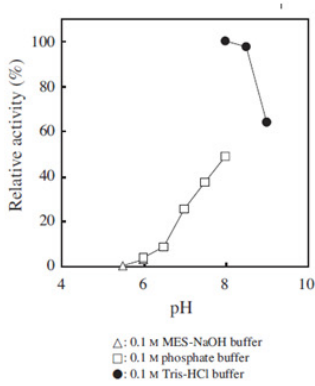


Figure -2 pH Stability

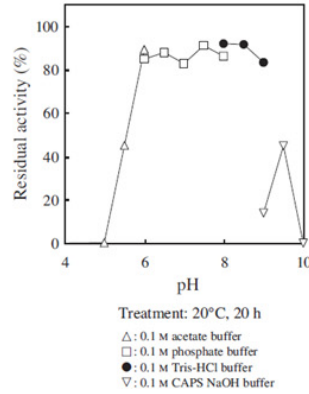


Figure -3 Optimum temperature

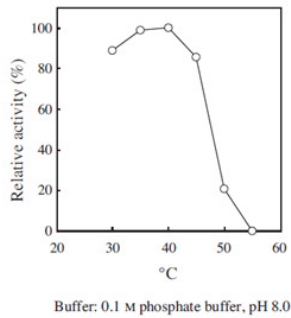
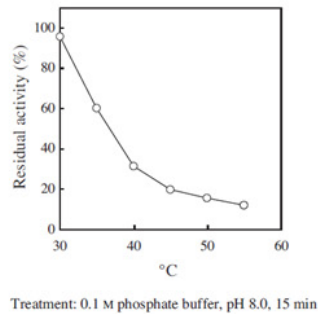


Figure -4 Thermal stability



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