

Fructosyl-peptide Oxidase (FPOX) from E. coli

Product Information

Cat#	DIA-434
Source	E. coli
Form	Freeze dried powder
Activity	≥ 6.0 U/mg
Isoelectric point	4.2
Unit Definition	One unit (U) is defined as the amount of enzyme which produces 1 μmol of hydrogen peroxide per min at 37 °C and pH 8.0 under the conditions described below.
Storage	Below –20 °C
Enzyme Commission Number	EC 1.5.3
pH Stability	6.0–9.5
Michaelis Constant	3.4 × 10 ⁻³ M (Fructosyl-valyl-histidine) 4.4 × 10 ⁻³ M (Fructosyl-glycine) 8.9 × 10 ⁻³ M (Nε-fructosyl-lysine)
Optimum pH	7.5–8.0
Optimum temperature	35–42 °C
Thermal stability	Below 45 °C
Contaminants	Catalase ≤ 1.0 U/U%
Applications	For the determination of fructosyl-peptide and fructosyl-L-amino acid. Also it is useful for the determination of HbA1c by using protease together. (HbA1c is used as a test makar to diagnose diabetes. HbA1c can also be quantified by measuring the fructosyl peptide or fructosyl-L-amino acid excised by the protease from HbA1c.)
Appearance	Yellow lyophilizate

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Molecular Weight	ca. 60 kDa (Gel filtration)
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Notes	Stable at 37 °C for at least one month
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