Creative Enzymes
Diagnostic Enzymes

Native Alcaligenes sp. Choline Oxidase

Product Information

Cat#	DIA-184
Similar	Choline Oxidase
Source	Alcaligenes sp.
Description	In enzymology, a choline oxidase (EC 1.1.3.17) is an enzyme that catalyzes the chemical reaction: choline + O2? betaine aldehyde + H2O2. Thus, the two substrates of this enzyme are choline and O2, whereas its two products are betaine aldehyde and H2O2. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with oxygen as acceptor.
Form	Freeze dried powder
Activity	GradeIII 10U/mg-solid or more (containing approx. 20% of stabilizers)
CAS No.	9028-67-5
Isoelectric point	4.1±0.1
Synonyms	choline oxidase; EC 1.1.3.17
Enzyme Commission Number	EC 1.1.3.17
pH Stability	pH 7.0-9.0 (30°C, 2 hr)
Michaelis Constant	2.84×10?3M (Choline), 5.33×10?3M(Betaine aldehyde)
Optimum pH	8.0-8.5
Optimum temperature	40-45°C
Thermal stability	below 37°C (pH 7.5, 10min)
Stability	Stable at-20°C for at least 6 months
Stabilizers	EDTA, bovine serum albumin, amino acids (glycine, sodium gluta-mate, etc.)

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Inhibitors	p-Chloromercuribenzoate, Cu??, Co??, Hg??, Ag?
Contaminants	Catalase < 1.0×102%
Abbr	Choline Oxidase (Alcaligenes sp.)
Applications	This enzyme is useful for enzymatic determination of phospholipids when coupled with phospholipase D and for choline esterase-activity in clinical analysis.
Appearance	Yellowish amorphous powder, lyophilized
Structure	One mol of FAD is covalently bound to mol of the enzyme
Molecular Weight	approx. 95 kDa

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