



Creative Enzymes

Diagnostic Enzymes

Native Cucurbita sp. L-ascorbate oxidase

Product Information

Cat#	DIA-124
Abbr	L-ascorbate oxidase (Cucurbita sp.)
Similar	AAO
Source	Cucurbita sp.
Description	In enzymology, a L-ascorbate oxidase (EC 1.10.3.3) is an enzyme that catalyzes the chemical reaction $2 \text{ L-ascorbate} + \text{O}_2 \leftrightarrow 2 \text{ dehydroascorbate} + 2 \text{ H}_2\text{O}$. Thus, the two substrates of this enzyme are L-ascorbate and O ₂ , whereas its two products are dehydroascorbate and H ₂ O.
Applications	This enzyme is useful for enzymatic determination of ascorbic acid and for eliminating the interference of ascorbic acid in clinical analysis.
Appearance	Light blue amorphous powder, lyophilized
Product Overview	Native L-ascorbate oxidase (EC 1.10.3.3) was purified from Acremonium sp..
Form	Light blue lyophilized powder.
Enzyme Commission Number	EC 1.10.3.3
Activity	200U/mg
CAS No.	9029-44-1
Contaminants	Catalase < 1.0×10 ⁻¹ % Phosphatase < 2.0×10 ⁻² %
pH Stability	pH 6.0-10.0 (25°C, 20hr)
Michaelis Constant	3.0×10 ⁻⁴ M(Ascorbate)
Specificity	The enzyme oxidizes ascorbic acid and several ascorbic acid derivatives.
Unit Definition	One unit causes the decrease of one micromole of ascorbic acid per minute under the conditions described below.



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Optimum pH	6
Thermal stability	below 45°C (pH 7.0, 30min)
Stability	Stable at-20°C for at least one year
Storage	Store in tightly closed containers, desiccated, protected from light, at-20°C.
Inhibitors	cyanide, Na ₂ S, diethyldithiocarbamate (Na)
Synonyms	ascorbase; ascorbic acid oxidase; ascorbate oxidase; ascorbic oxidase; ascorbate dehydrogenase; L-ascorbic acid oxidase; AAO; L-ascorbate: O ₂ oxidoreductase; AA oxidase; EC 1.10.3.3; 9029-44-1; L-ascorbate oxidase