

Native Cucurbita sp. L-ascorbate oxidase

Product Information

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| 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. |



Creative Enzymes

Diagnostic Enzymes

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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 |