

## Cholesterol Oxidase from *Streptomyces* sp.

### Product Information

<b>Cat#</b>	NATE-0128
<b>Similar</b>	Cholesterol Oxidase
<b>Source</b>	<i>Streptomyces</i> sp.
<b>Description</b>	Cholesterol oxidase (CHOD) is a monomeric flavoprotein containing FAD that catalyzes the first step in cholesterol catabolism. This bifunctional enzyme oxidizes cholesterol to cholest-5-en-3-one in an FAD-requiring step, which is then isomerized to cholest-4-en-3-one with the release of H <sub>2</sub> O <sub>2</sub> .
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 1.1.3.6
<b>Activity</b>	15U/mg-solid or more
<b>CAS No.</b>	9028-76-6
<b>Isoelectric point</b>	5.1 ± 0.1 and 5.4 ± 0.1
<b>pH Stability</b>	pH 5.0 – 10.0 (25°C, 20hr)
<b>Michaelis Constant</b>	4.3 x 10 <sup>-5</sup> M (Cholesterol)
<b>Unit Definition</b>	One unit will convert 1.0 μmole of cholesterol to 4-cholesten-3-one per min at pH 7.5 at 25°C. Note: 4-cholesten-3-one may undergo isomerization.
<b>Optimum pH</b>	6.5 – 7.0
<b>Optimum temperature</b>	45 – 50°C
<b>Thermal stability</b>	Below 45°C (pH 7.0, 15min)
<b>Storage</b>	-20°C
<b>Buffer</b>	50 mM potassium phosphate buffer, pH 7.0: soluble (Cold)



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<b>Inhibitors</b>	Ionic detergents, Hg <sup>++</sup> , Ag <sup>+</sup>
<b>Synonyms</b>	EC 1.1.3.6, cholesterol-O <sub>2</sub> oxidoreductase; 3 $\beta$ -hydroxy steroid oxidoreductase; 3 $\beta$ -hydroxysteroid:oxygen oxidoreductase; 9028-76-6