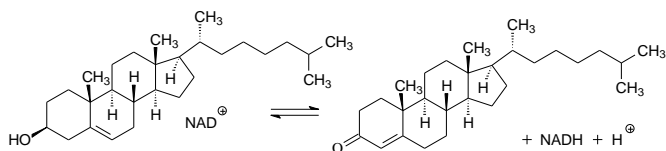


## Product Information

Cholesterol Dehydrogenase from *Nocardia* sp.Catalog Number **C8743**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$ CAS RN 067775-34-2  
EC 1.1.1.B40

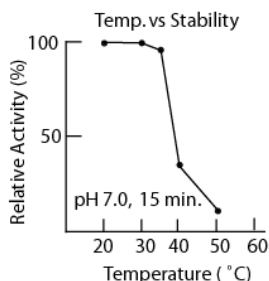
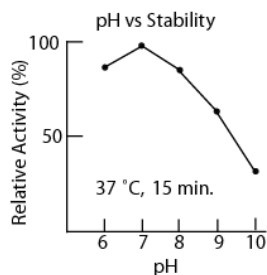
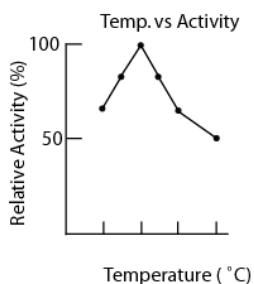
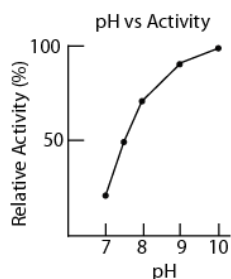
## Product Description

Cholesterol dehydrogenase is a NAD(P)-dependent microbial dehydrogenase that oxidizes the 3- $\beta$ -hydroxyl group of cholesterol to yield cholest-4-ene-3-one.<sup>1</sup> This enzyme can be coupled with cholesterol esterase for the determination of cholesterol in plasma.



Several reaction parameters have been determined:  
 $K_M$  (Cholesterol): 0.15 mM  
 $K_M$  (NAD): 0.23 mM

Molecular mass: ~37 kDa (SDS-PAGE)  
 Isoelectric Point: 4.5  
 Activator: TRITON® X-100



Substrate	Relative activity
Cholesterol	100%
$\beta$ -Sitosterol	52%
Ergosterol	50%
Stigmasterol	30%
Pregnenolone	14%
Lanosterol	0%
Dehydroisoandrosterone	0%
Cholate	0%
Testosterone	0%
NAD	100%
NADP	0%

Specific activity:  $\geq 18.0$  units/mg solidUnit Definition: One unit will produce 1.0  $\mu\text{M}$  of cholesten-4-en-3-one per minute at pH 8.5 at 20 °C.

## Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

## Preparation Instructions

For the activity assay, the enzyme is dissolved in 0.02 M phosphate buffer with 2.5% TRITON X-100.

## Storage/Stability

The product is supplied as a lyophilized powder. Store the product at  $-20\text{ }^{\circ}\text{C}$ .

## References

- Horinouchi, S. *et al.*, *Appl. Environ. Microbiol.*, **57(5)**, 1386-1393 (1991).

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RBG,CMS,GCY,MAM 08/19-1