

Native Clostridium sp. Diaphorase

Cat. No. DIA-187

Lot. No. (See product label)

Introduction

Applications This enzyme is useful for colorimetric determination of NAD(P)H and many dehydrogenases when coupled with various dyes which act as hydrogen acceptors from NAD(P)H.

Synonyms Diaphorase; EC 1.6.99.-

Product Information

Source Clostridium sp.

Appearance Yellowish amorphous powder, lyophilized

Form Freeze dried powder

EC Number EC 1.6.99.-

Molecular Weight 24 kDa

Activity GradeIII 30U/mg-solid or more (containing approx. 15% of stabilizers)

Contaminants Myokinase < $5.0 \times 10^{-1}\%$ NAD(P)H oxidase < $5.0 \times 10^{-1}\%$

pH Stability pH 7.5 (30°C, 3hr)

Optimum pH 8.5

Thermal stability below 30°C (pH 7.5, 30min)

Optimum temperature 50°C

Michaelis Constant $2.0 \times 10^{-5}\text{M}$ (NADH), $6.0 \times 10^{-6}\text{M}$ (NADPH)

Structure One mol of FMN per mol of enzyme

Specificity Either NADH or NADPH can be used as a reductant. The catalytic ratio (NADPH/NADH) is 0.6 in the assay method. Neither oxygen nor cytochrome C can be utilized as a hydrogen acceptor.

Inhibitors N-Ethylmaleimide

Stabilizers FMN, NAD(P)H

Storage and Shipping Information

Stability Stable at -20°C for at least one year