Creative Enzymes®

FMN Reductase from Escherichia coli (Fre), Recombinant

Cat. No. NATE-1744

Lot. No. (See product label)

Introduction

Description	E.coli
Applications	Bacterial (E. coli) NAD(P)H-dependent FMN-oxidoreductase is a recombinant protein of ca. 26kDa overexpressed in E.coli. The sequence of cloned Fre (SwissProt accession number P0AEN1) was confirmed by DNA sequencing (100% identity).
Synonyms	NAD(P)H:flavin oxidoreductase; NAD(P)H:flavin mono-nucleotide oxidoreductase; NAD(P)H(2):FMN oxidoreductase; NAD(P)H-FMN reductase; NAD(P)H-dependent FMN reductase; NAD(P)H:FMN oxidoreductase; riboflavin mononucleotide reductase; flavin mononucleotide reductase

Product Information

Species	FMN Reductase
Appearance	Coupling of bacterial luciferase to FMN-NAD(P)H oxidoreductase has been used to provide ultrasensitive analytical tools for the quantification of NADH and the substrates of NADH-, NADPH- dependent enzymes (e.g. glucose, lactate, malate, ethanol, sorbitol, oxaloacetate). Although FMN-reductase often present in luciferase enzyme preparations may be sufficient for producing light in the presence of NAD(P)H, highly purified and characterized Fre enzyme can offer some advantages such as an increased sensitivity, better control of the signal intensity and duration, and saving of the luciferase enzyme.
EC Number	EC 1.5.1.29
Molecular Weight	26kDa
Activity	>2U/mg
Unit Definition	One unit of FMN-reductase converts 1.0 µmole of FMN and NADH to FMNH2 and NAD per minute at pH 7.9 at 37°C.

Usage and Packaging

Package	stable lyophilized form