Creative Enzymes®

Nitroreductase from Escherichia coli, Recombinant

Cat. No. NATE-0488

Lot. No. (See product label)

Introduction

Description	Nitroreductase increases the sensitivity of organisms to nitro-containing drugs such as metronidazole by converting the nitro group to a cytotoxic nitro radical. Shows ability to reduce quinines. Enzyme for activating prodrugs in antibody directed enzyme prodrug therapy.
Applications	Nitroreductase has been used in a study that used a set of PCR primers to clone a gene encoding a hypothetical nitroreductases (named as Ssap-NtrB) from uropathogenic staphyl oc occus. It has also been used to improve prodrug activation. Nitroreductase from Escherichia coli has been used in a study to assess anaerobic bacteria as a gene delivery system for cancer treatment. It has also been used in a study to investigate its applications in antibody-directed enzyme prodrug therapy.
Synonyms	Nitroreductase

Product Information

Species	Escherichia coli
Source	E. coli
Molecular Weight	monomer mol wt 24 kDa
Purity	> 90% (SDS-PAGE)
Pathway	Microbial metabolism in diverse environments, organism-specific biosystem; Nitrotoluene degradation, organism-specific biosystem; Nitrotoluene degradation, conserved biosystem
Unit Definition	One unit will reduce one µmole of Cytochrome C per minute in the presence of Menadione and NADH at pH 7.4 at 37°C.

Storage and Shipping Information

Storage	−20°C