Creative Enzymes®

arsenate reductase (thioredoxin)

Cat. No. EXWM-1243

Lot. No. (See product label)

Introduction

Description	The enzyme, characterized in bacteria of the Firmicutes phylum, is specific for thioredoxin. It has no activity with glutaredoxin [cf. EC 1.20.4.1, arsenate reductase (glutaredoxin)]. Although the arsenite formed is more toxic than arsenate, it can be extruded from some bacteria by EC 3.6.3.16, arsenite-transporting ATPase; in other organisms, arsenite can be methylated by EC 2.1.1.137, arsenite methyltransferase, in a pathway that produces non-toxic organoarsenical compounds. The enzyme also has the activity of EC 3.1.3.48, protein-tyrosine-phosphatase.
Synonyms	ArsC (ambiguous)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.20.4.4
Reaction	arsenate + thioredoxin = arsenite + thioredoxin disulfide + H2O
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.