

betaine reductase

Cat. No. EXWM-1259

Lot. No. (See product label)

Introduction

Description The reaction is observed only in the direction of betaine reduction. The enzyme from Eubacterium acidaminophilum consists of subunits A, B and C. Subunit B contains selenocysteine and a pyruvoyl group, and is responsible for betaine binding and trimethylamine release. Subunit A, which also contains selenocysteine, is reduced by thioredoxin, and is needed to convert the carboxymethyl group into a ketene equivalent, in turn used by subunit C to produce acetyl phosphate. Only subunit B distinguishes this enzyme from EC 1.21.4.2 (glycine reductase) and EC 1.21.4.3 (sarcosine reductase).

Synonyms acetyl-phosphate trimethylamine:thioredoxin disulfide oxidoreductase (N,N,N-trimethylglycine-forming)

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.21.4.4

CAS No. 125752-87-6

Reaction acetyl phosphate + trimethylamine + thioredoxin disulfide + H₂O = betaine + phosphate + thioredoxin

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.