

Glycine Oxidase H244K from Bacillus subtilis, recombinant

Cat. No. NATE-1674

Lot. No. (See product label)

Introduction

Description Glycine oxidase (GO) from Bacillus subtilis (EC 1.4.3.19) is a homotetrameric flavin-dependent oxidoreductase. Each GO monomer is non-covalently bound to flavin adenine dinucleotide. GO catalyzes oxidative deamination of various primary and secondary amines (e.g. glycine, sarcosine, N-ethylglycine) and some D-amino acids (e.g. D-alanine, D-proline, D-valine) to the corresponding α -keto acids and hydrogen peroxide. Primarily, glycine oxidase catalyzes the oxidation of glycine in the biosynthesis of thiamine. The variant H244K shows a higher substrate specificity ratio for glycine versus sarcosine and a 5-fold improved specific activity in comparison to the wild-type.

Synonyms Glycine oxidase; glycine oxygen oxidoreductase (deaminating); GO; EC 1.4.3.19; 39307-16-9

Product Information

Species Bacillus subtilis

Source E. coli

Form Liquid

EC Number EC 1.4.3.19

CAS No. 39307-16-9

Molecular Weight 43.1 kDa (1-369 aa, NT His Tag)

Purity > 90% by SDS-PAGE

Activity 1200 mU/mg

Concentration 4.0 mg/ml

Unit Definition One unit is defined as the amount of enzyme required to convert one micromole of glycine into glyoxylate and hydrogen peroxide at pH 8.5 at 37°C.

Storage and Shipping Information

Storage Store at -20°C. Stable for at least 1 year as supplied. Avoid repeated freeze and thaw cycles.