Creative Enzymes®

glucosaminate ammonia-lyase

Cat. No. EXWM-5295

Lot. No. (See product label)

Introduction

Description	Contains pyridoxal phosphate. The enzyme releases an unstable enamine product that tautomerizes to an imine form, which undergoes spontaneous hydrolytic deamination to form the final product.
Synonyms	glucosaminic dehydrase; D-glucosaminate dehydratase; D-glucosaminic acid dehydrase; aminodeoxygluconate dehydratase; 2-amino-2-deoxy-D-gluconate hydro-lyase (deaminating); aminodeoxygluconate ammonia-lyase; 2-amino-2-deoxy-D-gluconate ammonia-lyase; D-glucosaminate ammonia-lyase; D-glucosaminate ammonia-lyase (isomerizing; 2-dehydro-3-deoxy-D-gluconate-forming)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.3.1.9
CAS No.	37290-91-8
Reaction	2-amino-2-deoxy-D-gluconate = 2-dehydro-3-deoxy-D-gluconate + NH3 (overall reaction); (1a) 2-amino-2-deoxy-D-gluconate = (2Z,4S,5R)-2-amino-4,5,6-trihydroxyhex-2-enoate + H2O; (1b) (2Z,4S,5R)-2-amino-4,5,6-trihydroxyhex-2-enoate = (4S,5R)-4,5,6-trihydroxy-2-iminohexanoate (spontaneous); (1c) (4S,5R)-4,5,6-trihydroxy-2-iminohexanoate + H2O = 2-dehydro-3-deoxy-D-gluconate + NH3 (spontaneous)
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 ℃.