

## glucosamine 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-glucosamine 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-glucosamine ammonia-lyase; D-glucosamine 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 + NH<sub>3</sub> (overall reaction); (1a) 2-amino-2-deoxy-D-gluconate = (2Z,4S,5R)-2-amino-4,5,6-trihydroxyhex-2-enoate + H<sub>2</sub>O; (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 + H<sub>2</sub>O = 2-dehydro-3-deoxy-D-gluconate + NH<sub>3</sub> (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 °C for short term. For long term storage, store it at -20 °C~-80 °C.