

Penicillin G Amidase Biocatalyst - Beta



IMMOBILIZED

PGA - BETA

D-40

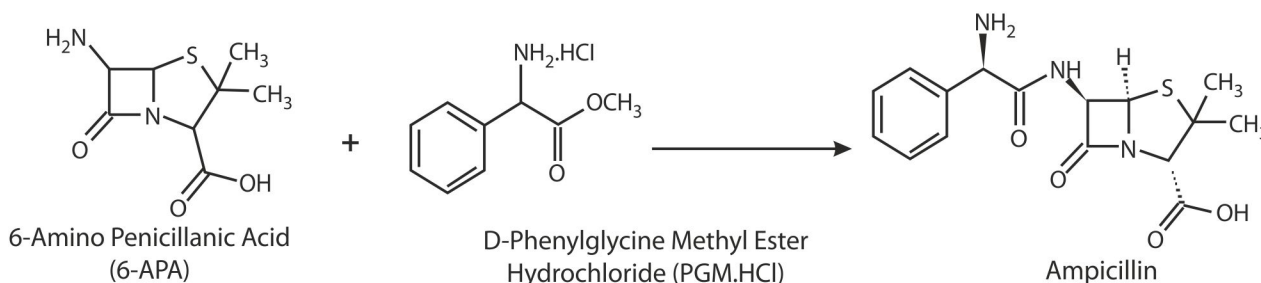
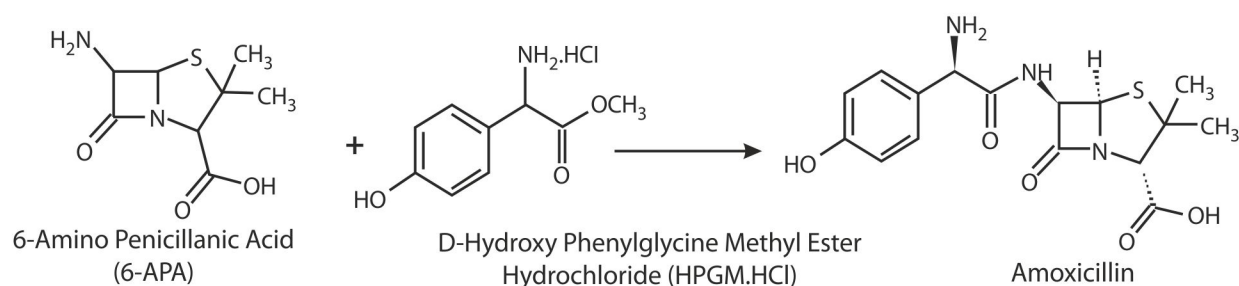
TECHNICAL DATA SHEET

Immobilized enzyme catalyst of **Penicillin G Amidase** from *Achromobacter sp.*

Product type	Penicillin G Amidase Biocatalyst - Beta is based on covalent immobilization on epoxy / amino polyacrylate beads of Penicillin G Amidase enzyme from <i>Achromobacter sp.</i> produced in <i>E.coli</i> . It is supplied as insoluble wet spherical beads.
Application	Enzymatic synthesis of Amoxicillin and Ampicillin
Description	Off white / brown coloured regular shaped beads with defined particle size distribution. Colour may vary from batch to batch and the colour intensity is not an indication of the product quality.
Particle size	250-500 μm > 95.0 %
Enzyme activity	NLT 180 U/g dry for Amoxicillin synthesis NLT 130 U/g dry for Ampicillin synthesis
Dry weight	NLT 40 %
Unit definition (U/g)	<p>Amoxicillin (Amox) synthesis unit: catalyzes the formation of 1 micromole of amoxicillin trihydrate per minute per g of enzyme by the acylation of 6-amino penicillanic acid nucleus with D-Hydroxy phenyl glycine methyl ester hydrochloride as acyl donor with 1: 1.5 molar ratio of nucleus to acyl donor, pH 6.3, at 28°C in 100mM sodium phosphate buffer within the range of zero order kinetics.</p> <p>Ampicillin(Ampi) synthesis unit: catalyzes the formation of 1 micromole of ampicillin trihydrate per minute per g of enzyme by the acylation of 6-amino penicillanic acid nucleus with D- phenyl glycine methyl ester hydrochloride as acyl donor with 1: 1.2 molar ratio of nucleus to acyl donor, pH 6.3, at 28°C in 100 mM sodium phosphate buffer within the range of zero order kinetics.</p>

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Reaction schematics



Advantages

- Higher synthesis activity
- Longer stability and recyclability
- Faster reaction time
- Lower Ester hydrolysis

Storage & Product stability

Cool and dry conditions are recommended for storage. The recommended temperature for storing is between 5°C - 10°C. When stored under these conditions, the product will maintain its declared activity for at least 12 months.

Safety

Immobilized Penicillin G Amidase Biocatalyst - Beta is very safe to handle, as it does not generate any aerosols. However, avoid raising dust. Avoid contact with skin and eyes. Take up the spilled dust by mechanical means. Avoid forming aerosols, wash contaminated clothing and ensure sufficient ventilation.

Material support data

- Technical data sheet
- Certificate of analysis
- Material safety data sheet
- Protocol for assay methods

Packing size

- Minimum pack size : 1kg
- Bulk pack size : 20 kg

Manufactured by :

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