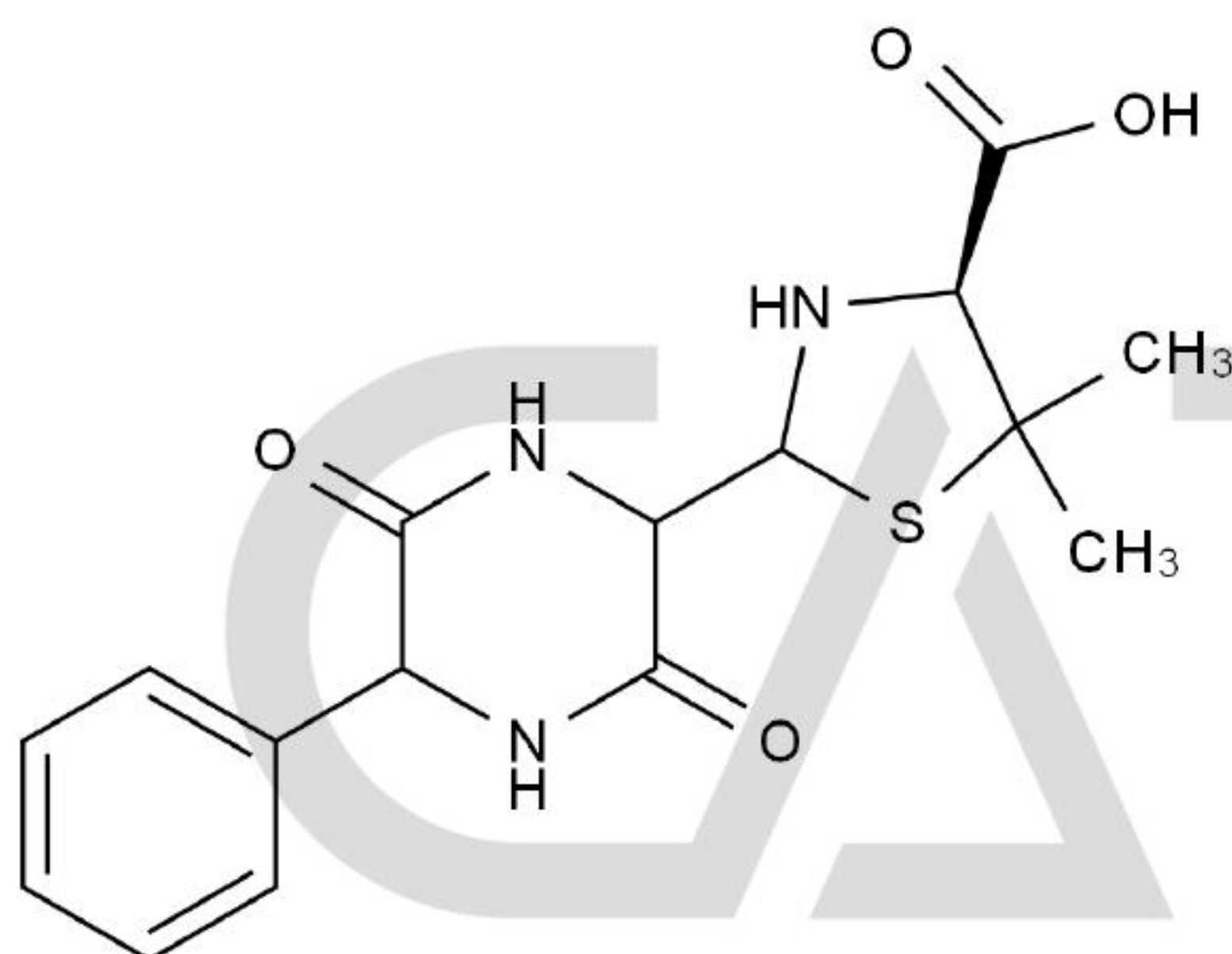


Certificate of Analysis

Reference Material & Standard

Product Name:	Ampicillin EP Impurity C(Isomeric mixture 2)	Catalogue Number:	C4X-144318
Synonyms:	(4S)-2-(3,6-Dioxo-5-phenylpiperazin-2-yl)-5,5-dimethylthiazolidine-4-carboxylic acid	Lot Number:	0327-RH-0056
CAS Number:	N/A	Expiry Date:	Apr 08, 2030
Molecular Formula:	C ₁₆ H ₁₉ N ₃ O ₄ S	Storage:	-20°C±5°C Sealed
Molecular Weight:	349.40	Shipping Condition:	Shipping with Ice Packs
Solubility:	Soluble in DMSO	Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	99.574%
Residue on Ignition	TGA	0.3268%
Loss on Drying	TGA	0.1056%
Assay	qNMR	99.4%
Assay	Mass Balance	99.1%

Comment:

- The retest date of this product is Apr 08, 2029.
- The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Residue on Ignition} - \text{Loss on Drying}) * \text{Purity HPLC (\%)} / 100\%$$
Residue on Ignition and Loss on Drying are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Koi

Reviewed by:

Alice

Approved by General Manager:

David

Date: May 09, 2026

Date: May 09, 2026

Date: May 09, 2026



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