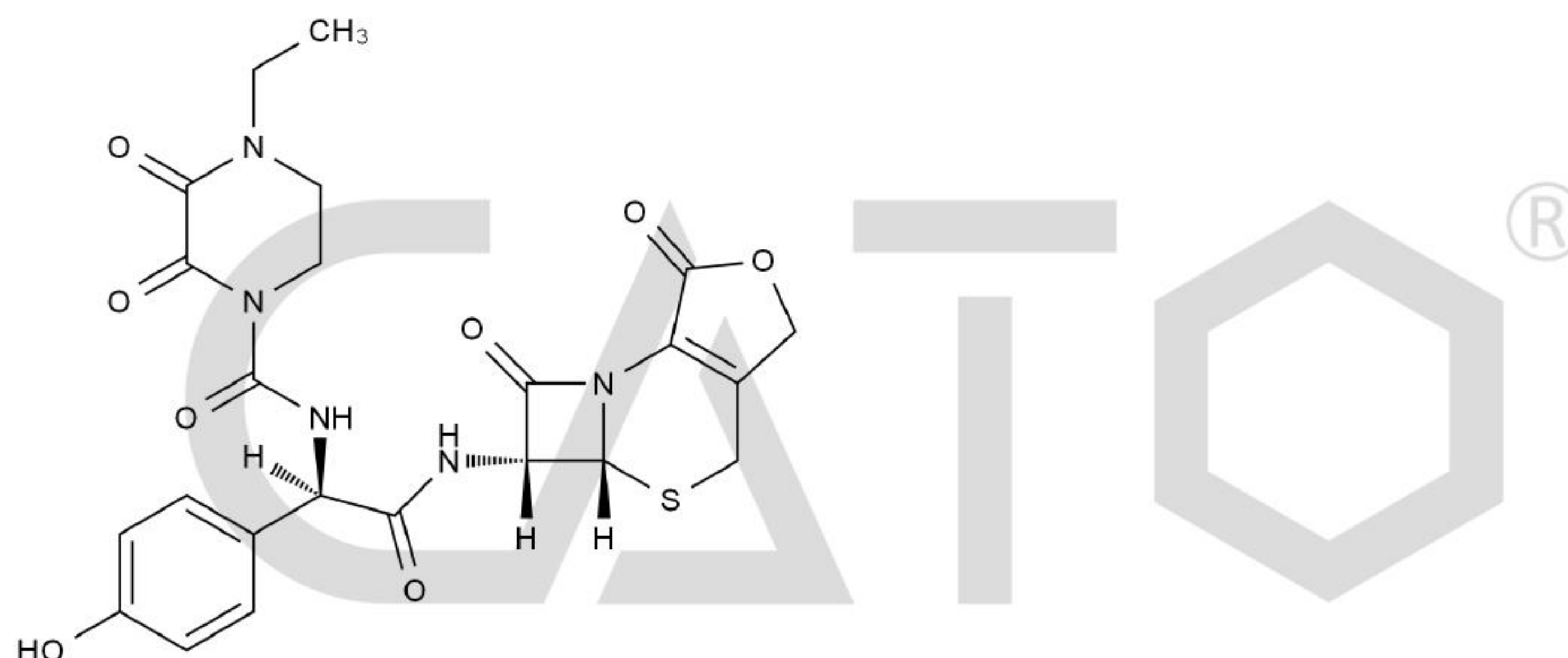


Certificate of Analysis

Reference Material & Standard

Product Name:	Cefoperazone EP Impurity A	Catalogue Number:	C4X-11493
Synonyms:	N-[(1R)-2-[[[(4R,5R)-3,11-dioxo-10-oxa-6-thia-2-azatricyclo[6.3.0.0 ^{2,5}]undec-1(8)-en-4-yl]amino]-1-(4-hydroxyphenyl)-2-oxoethyl]-4-ethyl-2,3-dioxopiperazine-1-carboxamide	Lot Number:	0127-RH-0038
CAS Number:	73240-08-1	Expiry Date:	Feb 23, 2030
Molecular Formula:	C ₂₃ H ₂₃ N ₅ O ₈ S	Storage:	-20°C±5°C Sealed
Molecular Weight:	529.52	Shipping Condition:	Shipping with Ice Packs
Solubility:	Soluble in DMSO		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Yellow Solid
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	98.161%
Residue on Ignition	TGA	0.3773%
Loss On Drying	TGA	1.2445%
Assay	qNMR	95.7%
Assay	Mass Balance	96.6%

Comment:

- The retest date of this product is Feb 23, 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:

Hinlam

Approved by General Manager:

David

Date: Feb 24, 2026

Date: Feb 24, 2026

Date: Feb 24, 2026

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