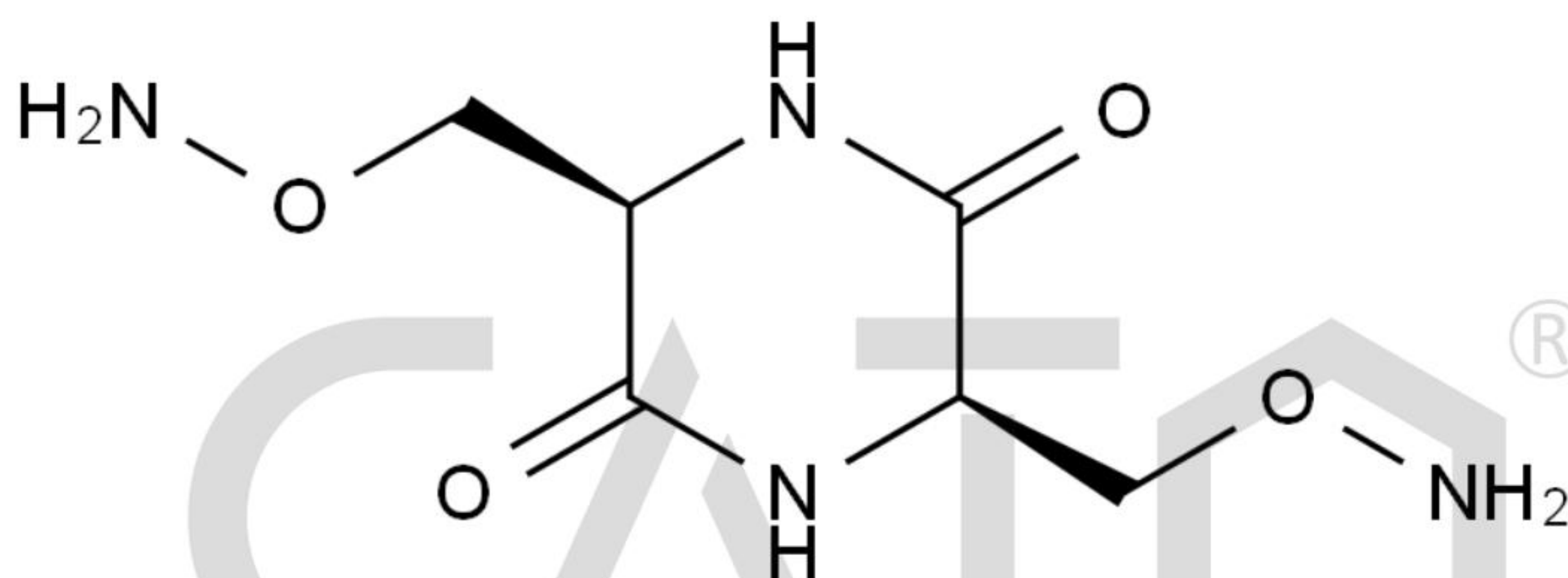


Certificate of Analysis

Reference Material & Standard

Product Name:	Cycloserine Dimer Impurity (Cycloserine Diketoperazine)	Catalogue Number:	CPTD788498
Synonyms:	(3R,6R)-3,6-Bis[(aminooxy)methyl]-2,5-piperazinedione	Lot Number:	0313-RH-0062
CAS Number:	16337-02-3	Expiry Date:	Apr 28, 2030
Molecular Formula:	C ₆ H ₁₂ N ₄ O ₄	Storage:	2°C ~ 8°C Sealed
Molecular Weight:	204.18	Shipping Condition:	Shipping at Room Temperature
Solubility:	Soluble in Water and DMSO		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	96.747%
Residue on Ignition	TGA	0.2872%
Loss on Drying	TGA	0.3475%
Assay	qNMR	96.0%
Assay	Mass Balance	96.1%

Comment:

- The retest date of this product is Apr 28, 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: Apr 29, 2026

Date: Apr 29, 2026

Date: Apr 29, 2026

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