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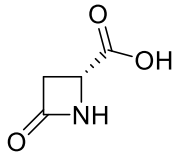
PRODUCT DATA SHEET

D-Pyroaspartic acid

Code No.: **BIA-P2223**

Pack sizes: **1 mg, 5 mg**



Synonyms :

Specifications

CAS #	:	**62860-12-2**
Molecular Formula	:	**$C_4H_5NO_3$**
Molecular Weight	:	**115.1**
Source	:	**Synthetic**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in methanol or DMSO**

Application Notes

D-Pyroaspartic acid ((2R)-4-oxoazetidine-2-carboxylic acid) is a head-to-tail cyclisation of D-aspartic acid to form the only amino acid derived azetidine. Synthetically, D-Pyroaspartic acid is prepared by cyclisation of the corresponding methyl esters. Unlike pyroglutamic acid, pyroaspartic acid is not a thermal degradation product but is re-named to better reflect the compound's structural relationship to L-aspartic acid. Despite the intensive interest in beta-lactams spanning 70 years, D-pyroaspartic acid has received scant attention except for its role as a synthon to more complex molecules.

References

1. Carbon based nucleophilic ring opening of activated monocyclic β-lactams; Synthesis and stereochemical assignment of the ACE Inhibitor WF-10129. Baldwin J.E. et al. Tetrahedron 1995, 51, 11581.
2. The stereocontrolled synthesis of (2S,3R)-3-alkyl-L-aspartic acids using a 2-azetidinone framework as a chiral template. Hanessian S. et al. Synlett. 1992, 33.

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