

Product Data Sheet

Product Name: DAz-1
Cat. No.: GC41445

Chemical Properties

Cas. No. 1112977-84-0

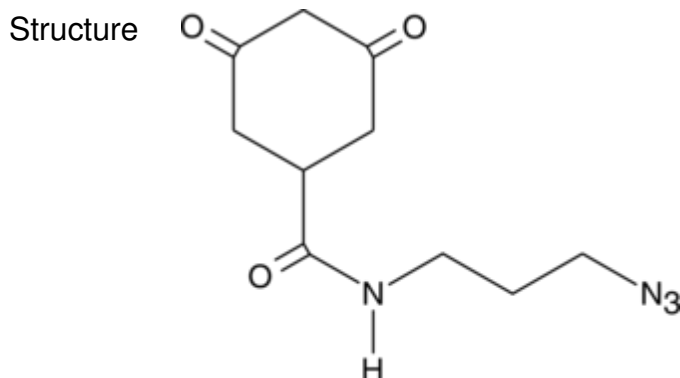
SMILES O=C(C1)CC(C(NCCCN=[N+]=[N-])=O)CC1=O

Formula C₁₀H₁₄N₄O₃ M.Wt 238.2

Solubility DMF: Miscible, DMSO: Miscible, Ethanol: Miscible, PBS (pH 7.2): 20 mg/ml
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.



Background

Redox-sensitive cysteine residues in proteins may function as sensors of reactive oxygen species (ROS) and also serve as molecular switches, activating or deactivating proteins, following a change in oxidation state. Modification of protein function through the reversible oxidation of cysteine is emerging as a biologically relevant signal transduction mechanism. Sulfenic acid is the initial oxidation product of cysteine by relatively mild oxidizing agents such as hydrogen peroxide. Sulfenic acid can be reduced back to the free thiol or be further oxidized to sulfinic and sulfonic acids. DAz-1 is a cell-permeable chemical probe that reacts specifically with sulfenic acid-modified proteins. The

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azido group of DAZ-1 provides a method for selective conjugation to phosphine- or alkynyl-derivatized reagents, such as biotin or various fluorophores, for subsequent analysis of the labeled proteins. DAZ-1 is a less sensitive probe for sulfenic acid detection compared to its analog DAZ-2 .

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