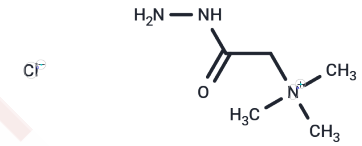
Data Sheet (Cat.No.T67886)

TargetMol

Girard's Reagent T

Chemical Properties



CAS No. : 123-46-6

Formula: C5H14ClN3O

Molecular Weight: 167.64

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Girard's Reagent T (Trimethylacetohydrazideammonium Chloride) is a biochemical reagent. Girard's Reagent T under mild acid or alkaline conditions, reacts with aldehydes and ketones containing α-dicarbonyl functional groups to produce addition compounds which strongly absorb ultraviolet light.
Targets(IC50)	Others
In vitro	Instructions Derivatization of aldehydes and ketones: 1. Method: When performing derivatization, first dissolve the sample in an appropriate solvent (such as water, methanol, dichloromethane, etc.). Then, add a certain amount of Girard's Reagent T (usually a molar ratio of 1:1 to 1:10). Heat the reaction mixture to 50-60°C and react for 1-2 hours, then separate the derivative by extraction, concentration or other means. 2. Amount of Girard's Reagent T: Amount of reagent: Depending on the requirements of the derivatization reaction, the amount of Girard's Reagent T is usually a molar ratio of 1:1 to 1:10 (molar ratio of Girard's Reagent T to the aldehyde or ketone to be derivatized). For complex samples, a higher ratio may be required. Solvent: The amount of solvent usually used is 5-10 times the volume of the sample. The choice of solvent is usually determined by the nature of the sample being treated, such as methanol, ethanol, dichloromethane, etc. 3. Mass spectrometry: For mass spectrometry, the GR-T is often used to derivatize samples to increase the volatility and polarity of compounds. Aldehydes and ketones can be rapidly derivatized by simple mixing, heating, or cooling. Commonly used solvents are methanol or dichloromethane, and the reaction temperature is usually between room temperature and 60°C. Note: After the reaction, the derivatives can be purified by nitrogen drying, extraction, or column chromatography. The purification method in this step depends on the nature of the sample and the solvent used.

Solubility Information

Solubility	DMSO: 2.78 mg/mL (16.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.9652 mL	29.8258 mL	59.6516 mL
5 mM	1.193 mL	5.9652 mL	11.9303 mL
10 mM	0.5965 mL	2.9826 mL	5.9652 mL
50 mM	0.1193 mL	0.5965 mL	1.193 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Smith, A. L. et al., "Selective Labeling of Carbonyl Compounds in Complex Mixtures," Analytical Chemistry, 2005.
Silverman, R. B., "Selective Modification of Carbonyl Compounds Using Girard Reagents," Chemical Reviews, 1984.
Kendall, R. S. et al., "Separation of Aldehydes and Ketones Using Girard's T and P Reagents," Journal of Chromatography A, 1978.