

HADA Hydrochloride

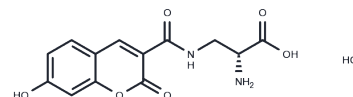
Chemical Properties

CAS No. : 2253733-10-5

Formula: C₁₃H₁₃ClN₂O₆

Molecular Weight: 328.71

Appearance: no data available

Storage: keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	HADA Hydrochloride (HCC-Amino-D-alanine hydrochloride) is a blue (λ_{em} ~450 nm) fluorescent D-amino acid (FDAA). FDAAs are efficiently incorporated into the peptidoglycans (PGs) of diverse bacterial species at the sites of PG biosynthesis. HADA Hydrochloride can be used in specific and covalent probing of bacterial growth with minimal perturbation.
Targets(IC50)	Autophagy
In vitro	FDAAs labeling can be completed in as little as 30 seconds for rapidly growing species like Escherichia coli. Despite HADA Hydrochloride being dimmer and less photostable compared to FDL or TDL, it consistently and effectively labels the PG of a wide range of bacterial species, usually without requiring significant optimization[1].

Solubility Information

Solubility	DMSO: 112.5 mg/mL (342.2 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0422 mL	15.211 mL	30.422 mL
5 mM	0.6084 mL	3.0422 mL	6.0844 mL
10 mM	0.3042 mL	1.5211 mL	3.0422 mL
50 mM	0.0608 mL	0.3042 mL	0.6084 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.

Reference

Erkin Kuru, et al. Synthesis of fluorescent D-amino acids and their use for probing peptidoglycan synthesis and bacterial growth in situ. Nat Protoc. 2015 Jan;10(1):33-52.