

AC-green

Chemical Properties

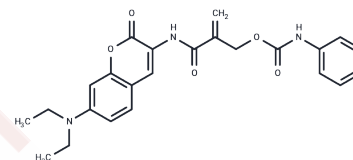
CAS No. : 2937705-58-1

Formula: C₂₄H₂₅N₃O₅

Molecular Weight: 435.47

Storage: 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	AC-green (VDP-green), a β -allyl carbamate fluorescent probe, excels at specifically imaging vicinal dithiol proteins (VDPs) within living systems, demonstrating significant sensitivity, particularly in detecting reduced bovine serum albumin (rBSA). With excitation and emission wavelengths of 400 nm and 475 nm respectively ($\lambda_{ex} / \lambda_{em} = 400/475$ nm), this probe maintains low toxicity while being highly suitable for sensing VDPs in living cells and zebrafish [1].
Targets(IC50)	Others
In vitro	AC-green (VDP-green) exhibits over a 60-fold increase in emission in aqueous solution in response to VDPs, without significant interference from biological thiols, amino acids, or inorganic salts [1]. At 2 μ M concentration and 90 minutes, AC-green shows no fluorescence signal within the pH range of 5.0-9.0 until rBSA is added, which activates fluorescence [1]. At 10 μ M, AC-green has low cytotoxicity in HepG2 and HeLa cells and can image VDPs in living HepG2 cells within 15 minutes, producing bright green fluorescence, which is inhibited by PAO, a specific ligand for protein vicinal dithiols [1]. Additionally, a 10 μ M concentration of AC-green incubated for 20 minutes with zebrafish generates a strong fluorescence signal in the green channel [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2964 mL	11.4818 mL	22.9637 mL
5 mM	0.4593 mL	2.2964 mL	4.5927 mL
10 mM	0.2296 mL	1.1482 mL	2.2964 mL
50 mM	0.0459 mL	0.2296 mL	0.4593 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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