
Product Data Sheet

Product Name: AC-green

Cat. No.: GC61592

Chemical Properties

Cas. No. 2937705-58-1

SMILES O=C(NC1=CC2=CC=C(C=C2OC1=O)N(CC)CC)C(COC(NC3=CC=CC=C3)=O)=C

Formula $C_{24}H_{25}N_3O_5$

M.Wt 435.47

Solubility DMSO : 100 mg/mL (229.64 mM; Need ultrasonic) 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.

Structure

Background

AC-green (VDP-green) is a β -allyl carbamate fluorescent probe for specifically imaging vicinal dithiol proteins (VDPs) in living systems ($\lambda_{ex}/\lambda_{em}=400/475$ nm). AC-green can detect the reduced bovine serum albumin (rBSA) with high sensitivity. AC-green displays low toxicity and features high sensitivity, and is suitable for sensing VDPs in living cells and zebrafishes[1].

AC-green (VDP-green) can respond to VDPs with more than 60-fold increase of emission in aqueous solution, while there is no significant interference from biological thiols, amino acids or inorganic salts[1]. AC-green (2 μ M; 90 min) has no apparent fluorescence signal within the pH range of 5.0-9.0. Addition of rBSA turns on the fluorescence[1]. AC-gree (10 μ M) has low cytotoxicity in HepG2 cells and Hela cells[1]. AC-gree (10 μ M; for 15 min) images VDPs in living HepG2 cells and bright green fluorescence appeared. This fluorescence is inhibited when the cells are pretreated with PAO, a popular specific ligand for protein vicinal dithiols[1]. AC-gree (10 μ M; for 20 min) incubates with zebrafishes has a strong fluorescence signal appeared in the green channel[1].

[1]. Lanning Zhao, et al. A β -allyl carbamate fluorescent probe for vicinal dithiol proteins. Chem Commun (Camb). 2020 Mar 5;56(19):2857-2860.

Caution: Product has not been fully validated for medical applications. For research use only.

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