
Product Data Sheet

Product Name: Boc-Lys(Tfa)-AMC

Cat. No.: GA21064

Chemical Properties

Cas. No. 97885-44-4

Formula $C_{23}H_{28}F_3N_3O_6$ M.Wt 499.49

Solubility Soluble in DMSO 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

Boc-Lys(Tfa)-AMC is the conjugated fluorophore acetylated lysine substrate for assaying histone deacetylase (HDAC) isoform activities [1]. After being hydrolyzed, Boc-Lys(Tfa)-AMC will release the fluorogenic 4-methylcoumarin-7-amide (AMC), and the amount of the generated AMC can be measured at the excitation wavelength of 355nm and the emission wavelength of 460nm [2]. Boc-Lys(Tfa)-AMC is widely used as a model substrate to characterize the enzymatic activity of class IIa HDAC and to screen for HDAC5 inhibitors [3].

References:

[1] Luckhurst C A, Breccia P, Stott A J, et al. Potent, selective, and CNS-penetrant tetrasubstituted cyclopropane class IIa histone deacetylase (HDAC) inhibitors[J]. ACS Medicinal Chemistry Letters, 2016, 7(1): 34-39.

[2] Zaidi S A H, Thakore N, Singh S, et al. Histone deacetylases regulation by δ -opioids in human optic nerve head astrocytes[J]. Investigative ophthalmology & visual science, 2020, 61(11): 17-17.

[3] Mammen C, Hornung F M, Anzenhofer C, et al. In vitro characterization of the catalytic domain of human histone deacetylase 5[J]. Scientific Reports, 2026.

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

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