

## Boc-Lys(Ac)-AMC

## Chemical Properties

CAS No. : 233691-67-3

Formula: C<sub>23</sub>H<sub>31</sub>N<sub>3</sub>O<sub>6</sub>

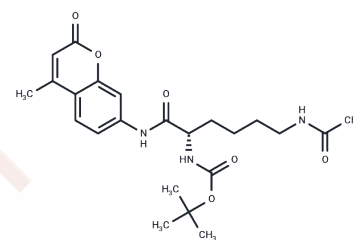
Molecular Weight: 445.51

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	Boc-Lys(Ac)-AMC (Boc-L-Lys(Ac)-AMC) is a synthetic substrate coupled to an HDAC-specific fluorophore (Ex/Em = 355 nm/460 nm).
Targets(IC50)	HDAC
In vitro	HDACs act by catalyzing the deacetylation reaction of the substrate Boc-Lys(Ac)-AMC. Upon addition of trypsin-containing development reagents, the deacetylation products are converted into quantifiable fluorescent markers that can be used both in screening methods and to help identify potential HDAC inhibitors. [1]

## Solubility Information

Solubility	DMSO: 125 mg/mL (280.58 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (22.45 mM), Solution. 10% DMSO+90% Saline: < 10 mg/mL (22.45 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.2446 mL	11.2231 mL	22.4462 mL
5 mM	0.4489 mL	2.2446 mL	4.4892 mL
10 mM	0.2245 mL	1.1223 mL	2.2446 mL
50 mM	0.0449 mL	0.2245 mL	0.4489 mL

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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

- Reddy DS, et al. Measuring Histone Deacetylase Inhibition in the Brain. *Curr Protoc Pharmacol.* 2018 Jun;81(1):e41.
- Ueki N, et al. Selective cancer targeting with prodrugs activated by histone deacetylases and a tumour-associated protease. *Nat Commun.* 2013;4:2735.
- Wegener D, et al. A fluorogenic histone deacetylase assay well suited for high-throughput activity screening. *Chem Biol.* 2003 Jan;10(1):61-8.

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