Boc-Leu-Gly-Arg-AMC

Cat. No.: HY-P2237

CAS No.: 65147-09-3

Molecular Formula: $C_{29}H_{43}N_7O_7$

Molecular Weight: 601.69

Sequence: Boc-Leu-Gly-Arg-AMC

Sequence Shortening: Boc-LGR-AMC

Target: Amino Acid Derivatives

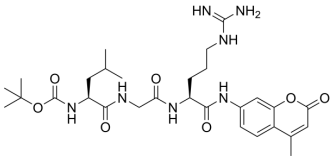
Pathway: Others

Storage: Sealed storage, away from moisture and light

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (166.20 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.6620 mL	8.3099 mL	16.6199 mL
5 mM	0.3324 mL	1.6620 mL	3.3240 mL
10 mM	0.1662 mL	0.8310 mL	1.6620 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.15 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Boc-Leu-Gly-Arg-AMC is a fluorogenic AMC substrate for the convertases. Boc-Leu-Gly-Arg-AMC can be used in enzymatic assays[1][2].

In Vitro	To demonstrate the presence in the abdominal gland of proteolytic enzymes capable of generating Sodefrin, an enzymatic assay was developed using Boc-Leu-Gly-Arg-AMC as synthetic substrate. A crude extract of the abdominal gland hydrolyzed Boc-Leu-Gly-Arg-AMC to liberate 7-amino-4- methylcoumarin, suggesting that enzymes that generate sodefrin from its precursor molecule are present in the gland. The activity in the extract for cleaving Boc-Leu-Gly-Arg-AMC is optimal at pH 9.0 and 45 ⊠[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Nakada T, et al. Evidence for processing enzymes in the abdominal gland of the newt, Cynops pyrrhogaster, that generate sodefrin from its biosynthetic precursor. Zoolog Sci. 2007 May;24(5):521-4.

[2]. Yumiko Obayashi, et al. Proteolytic enzymes in coastal surface seawater: Significant activity of endopeptidases and exopeptidases Limnol. Oceanogr., 50(2), 2005, 722-726.

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