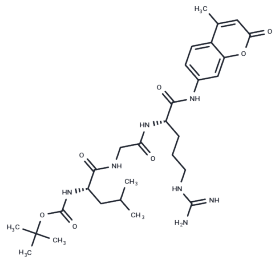
# Data Sheet (Cat.No.TP2169)

TargetMol

## Boc-Leu-Gly-Arg-AMC

### Chemical Properties



CAS No. : 65147-09-3

Formula: C29H43N7O7

Molecular Weight: 601.69

Storage: Keep away from moisture,Keep away from direct sunlight
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-Leu-Gly-Arg-AMC is a specific fluorogenic substrate designed for the enzymatic detection and quantification of complement component C3/C5 convertases, coagulation factor Xa, and soybean trypsin-like enzyme activity. Boc-Leu-Gly-Arg-AMC is also susceptible to hydrolysis by macropain, a high molecular weight thiol proteinase isolated from human erythrocytes, making it a versatile tool for enzymatic assays. |
| Targets(IC50) | Others,Amino Acids and Derivatives |
| In vitro | To demonstrate the presence of proteolytic enzymes capable of producing sodifrin in the abdominal gland, polybutoxycarbo-nyl (Boc)-Leu-Gly-Arg-4-methylcoumaryl-7-amide (MCA) and Boc-Leu-Leu-Lys-MCA were used as synthetic substrates. Crude extracts of the abdominal gland hydrolyzed both substrates to release 7-amino-4-methylcoumarin, indicating the presence of enzymes in the gland that generate sodifrin from its precursor molecule. The activity of the extracts to cleave Boc-Leu-Gly-Arg-AMC was optimal at pH 9.0 and 45°C, while the activity to cleave Boc-Leu-Leu-Lys-MCA was optimal at pH 9.0 and 40°C. [1] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 80 mg/mL (132.96 mM),Sonication is recommended.<br>H2O: < 0.1 mg/mL (insoluble),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.48 mM),Sonication is recommended.<br>*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.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.662 mL | 8.3099 mL | 16.6199 mL |
| 5 mM | 0.3324 mL | 1.662 mL | 3.324 mL |
| 10 mM | 0.1662 mL | 0.831 mL | 1.662 mL |
| 50 mM | 0.0332 mL | 0.1662 mL | 0.3324 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.

Reference

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