## **Product** Data Sheet

## O-(tert-Butyl)-N-Fmoc-L-allothreonine

Cat. No.:HY-W006923CAS No.:201481-37-0Molecular Formula: $C_{23}H_{27}NO_5$ Molecular Weight:397.46

Target: Amino Acid Derivatives

Pathway: Others

**Storage:** 4°C, protect from light, stored under nitrogen

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light, stored under

nitrogen)

## **SOLVENT & SOLUBILITY**

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DMSO: 100 mg/mL (251.60 mM; Need ultrasonic)

| Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg 5 mg |            | 10 mg      |  |
|------------------------------|-------------------------------|-----------|------------|------------|--|
|                              | 1 mM                          | 2.5160 mL | 12.5799 mL | 25.1598 mL |  |
| 2323 2214410113              | 5 mM                          | 0.5032 mL | 2.5160 mL  | 5.0320 mL  |  |
|                              | 10 mM                         | 0.2516 mL | 1.2580 mL  | 2.5160 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 (6.29 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.29 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.29 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

| Description | O-(tert-Butyl)-N-Fmoc-L-allothreonine is a threonine derivative <sup>[1]</sup> .  |
|-------------|---|
| In Vitro    | Amino acids and amino acid derivatives have been commercially used as ergogenic supplements. They influence the secretion of anabolic hormones, supply of fuel during exercise, mental performance during stress related tasks and prevent exercise induced muscle damage. They are recognized to be beneficial as ergogenic dietary substances <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

| REFERENCES                        |                              |                                   |  |                        |  |
|-----------------------------------|------------------------------|-----------------------------------|--|------------------------|--|
| [1]. Luckose F, et al. Effects of | amino acid derivatives on pl | nysical, mental, and physiologica | l activities. Crit Rev Food Sci Nutr.                  | 2015;55(13):1793-1144. |  |
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