

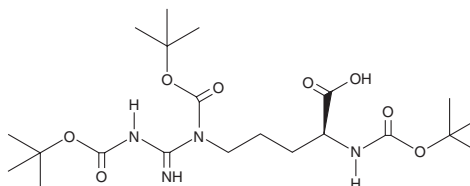
# PRODUCT INFORMATION



## Boc-Arg(Boc)<sub>2</sub>-OH

Item No. 30522

**CAS Registry No.:** 97745-69-2  
**Formal Name:** (8S)-8-carboxy-4-[(1,1-dimethylethoxy)carbonyl]-3-imino-12,12-dimethyl-10-oxo-11-oxa-2,4,9-triazatridecanoic acid, 1-(1,1-dimethylethyl)ester  
**Synonym:** N<sup>α</sup>,N<sup>ε</sup>,N<sup>ε</sup>-Tri-*tert*-butyloxycarbonylarginine  
**MF:** C<sub>21</sub>H<sub>38</sub>N<sub>4</sub>O<sub>8</sub>  
**FW:** 474.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 232 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Boc-Arg(Boc)<sub>2</sub>-OH is supplied as a crystalline solid. A stock solution may be made by dissolving the Boc-Arg(Boc)<sub>2</sub>-OH in the solvent of choice. Boc-Arg(Boc)<sub>2</sub>-OH is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of Boc-Arg(Boc)<sub>2</sub>-OH in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Boc-Arg(Boc)<sub>2</sub>-OH can be prepared by directly dissolving the crystalline solid in aqueous buffers. For maximum solubility in aqueous buffers, Boc-Arg(Boc)<sub>2</sub>-OH should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Boc-Arg(Boc)<sub>2</sub>-OH has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Boc-Arg(Boc)<sub>2</sub>-OH is an amino acid building block and derivative of arginine.<sup>1,2</sup> It has been used in the synthesis of amino acid prodrug forms of cytotoxic anthraquinones with anticancer activity.<sup>2</sup>

### References

1. Pozdnev, V.F. N<sup>α</sup>,N<sup>ε</sup>,N<sup>ε</sup>-Tri-*tert*-butyloxycarbonylarginine. A new arginine derivative for peptide synthesis. *Bioorganicheskaya Khimiya* **12(8)**, 1013-1022 (1986).
2. Anifowose, A., Yuan, Z., Yang, X., *et al.* Upregulation of p53 through Induction of MDM2 degradation: Amino acid prodrugs of anthraquinone analogs. *Bioorg. Med. Chem. Lett.* **30(2)**, 126786 (2020).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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