

# PRODUCT INFORMATION



## Kukoamine B

Item No. 21091

**CAS Registry No.:** 164991-67-7  
**Formal Name:** N-(3-aminopropyl)-N-[4-[[3-[[3-(3,4-dihydroxyphenyl)-1-oxopropyl]amino]propyl]amino]butyl]-3,4-dihydroxybenzenepropanamide

**MF:** C<sub>28</sub>H<sub>42</sub>N<sub>4</sub>O<sub>6</sub>

**FW:** 530.7

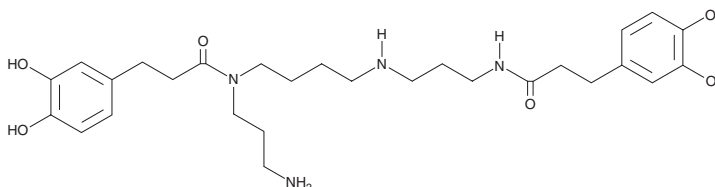
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 283 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



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

### Laboratory Procedures

Kukoamine B is supplied as a crystalline solid. A stock solution may be made by dissolving the kukoamine B in the solvent of choice. Kukoamine B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of kukoamine B 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 kukoamine B can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of kukoamine B in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Kukoamine B is a spermine alkaloid first isolated from a traditional Chinese herb *L. chinense* that inhibits both lipopolysaccharides (LPS) and oligodeoxynucleotides containing CpG motifs (CpG DNA).<sup>1</sup> It is reported to inhibit proinflammatory signal transduction and cytokine expression induced by LPS and CpG DNA (K<sub>d</sub>s = 1.24 and 0.66 μM).<sup>1</sup> LPS and CpG DNA are two well-recognized pathogen-associated molecular patterns (PAMPs) that play a role in triggering sepsis, thus sepsis may be attenuated by simultaneously neutralizing LPS and CpG DNA.<sup>1</sup>

### Reference

1. Liu, X., Zheng, X., Wang, N., *et al.* Kukoamine B, a novel dual inhibitor of LPS and CpG DNA, is a potential candidate for sepsis treatment. *Br. J. Pharmacol.* **162**(6), 1274-1290 (2011).

#### 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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