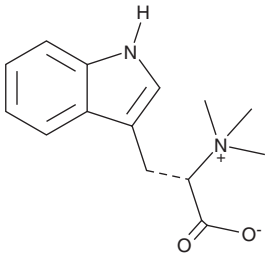
PRODUCT INFORMATION

Hypaphorine

Item No. 35228

CAS Registry No.:	487-58-1
Formal Name:	(αS)-α-carboxy-N,N,N-trimethyl-1H-indole-3-ethanaminium, inner salt
Synonyms:	L-Hypaphorine, (+)-Tryptophan, Tryptophan Betaine
MF:	$C_{14}H_{18}N_2O_2$
FW:	246.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 220 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Erythrina variegata*



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

Laboratory Procedures

Hypaphorine is supplied as a solid. A stock solution may be made by dissolving the hypaphorine in the solvent of choice, which should be purged with an inert gas. Hypaphorine is slightly soluble in ethanol, DMSO, and dimethyl formamide.

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 hypaphorine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of hypaphorine in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Hypaphorine is an indole alkaloid that has been found in *P. tinctorius* and has plant growth regulatory and anti-inflammatory activities.[1,2] It reverses inhibition of *E. globulus* seedling root growth induced by indole-3-acetic acid (IAA; Item No. 16954).[1] Hypaphorine (12.5-50 µM) inhibits LPS-induced apoptosis in BEAS-2B bronchial epithelial cells.[2] It decreases the severity of lung injury and bronchoalveolar fluid (BALF) neutrophil infiltration in a rat model of LPS-induced acute lung injury when administered at a dose of 10 mg/kg.

References

1. Ditengou, F.A. and Lapeyrie, F. Hypaphorine from the ectomycorrhizal fungus *Pisolithus tinctorius* counteracts activities of indole-3-acetic acid and ethylene but not synthetic auxins in eucalypt seedlings. *Mol. Plant Microbe Interact.* **13(2)**, 151-158 (2000).
2. Ding, Y.-H., Miao, R.-X., and Zhang, Q. Hypaphorine exerts anti-inflammatory effects in sepsis induced acute lung injury via modulating DUSP1/p38/JNK pathway. *Kaohsiung J. Med. Sci.* **37(10)**, 883-893 (2021).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM