

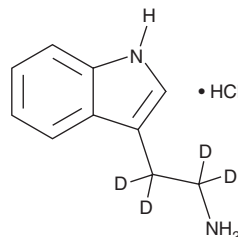
PRODUCT INFORMATION



Tryptamine-d₄ (hydrochloride)

Item No. 33538

CAS Registry No.: 340257-60-5
Formal Name: 1H-indole-3-ethan- $\alpha,\alpha,\beta,\beta$ -d₄-amine, monohydrochloride
Synonym: 3-Indoleethylamine-d₄
MF: C₁₀H₈D₄N₂ • HCl
FW: 200.7
Chemical Purity: ≥98% (Tryptamine)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 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

Tryptamine-d₄ (hydrochloride) is intended for use as an internal standard for the quantification of tryptamine (Item No. 20995) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Tryptamine-d₄ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the tryptamine-d₄ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Tryptamine-d₄ (hydrochloride) is slightly soluble in methanol and DMSO (warmed).

Description

Tryptamine is an indole alkaloid and intermediate in the biosynthesis of serotonin and the phytohormone melatonin in plants.^{1,2} It increases levels of the terpenoid indole alkaloids ajmalicine (Item No. 31213), strictosidine, and catharanthine (tartrate) (Item No. 11695) in cultures of *C. roseus*.³ Tryptamine is also a product of tryptophan metabolism in mammals.⁴ Tryptamine derivatives have been synthetically produced as hallucinogenic drugs of abuse that act on the serotonergic system.⁵

References

1. Arnao, M.B. Phytomelatonin: Discovery, content, and role in plants. *Adv. Bot.* 815769 (2014).
2. Fan, J., Xie, Y., Zhang, Z., et al. Melatonin: A multifunctional factor in plants. *Int. J. Mol. Sci.* **19**(5), E1528 (2018).
3. Almagro, L., Fernández-Pérez, F., and Pedreño, M.A. Indole alkaloids from *Catharanthus roseus*: Bioproduction and their effect on human health. *Molecules* **20**(2), 2973-3000 (2015).
4. Berumen, L.C., Rodríguez, A., Miledi, R., et al. Serotonin receptors in hippocampus. *Sci. World J.* 823493 (2012).
5. Araujo, A.M., Carvalho, F., Bastos, M.L., et al. The hallucinogenic world of tryptamines: An updated review. *Arch. Toxicol.* **89**(8), 1151-1173 (2015).

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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