PRODUCT INFORMATION



Tryptophol

Item No. 28404

CAS Registry No.: 526-55-6

1H-indole-3-ethanol Formal Name: Synonyms: **IEA, NSC 3884** MF: $C_{10}H_{11}NO$ FW: 161.2

Synthetic

Purity: ≥98% UV/Vis.:

 λ_{max} : 223, 284 nm A crystalline solid Supplied as: -20°C Storage: Stability: ≥4 years

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

Laboratory Procedures

Item Origin:

Tryptophol is supplied as a crystalline solid. A stock solution may be made by dissolving the tryptophol in the solvent of choice, which should be purged with an inert gas. Tryptophol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of tryptophol in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Tryptophol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tryptophol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Tryptophol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Tryptophol is an indole that has been found in plants, bacteria, fungi, and sponges and has diverse biological activities, including antifungal, sleep-promoting, and quorum-sensing-related properties.¹⁻³ Tryptophol (100 µM) inhibits the growth of the chytrid fungal skin pathogens B. dendrobatidis and B. salamandrivorans in vitro. As a quorum-sensing molecule, it also induces autostimulation and increases tryptophol production in B. dendrobatidis and B. salamandrivorans cultures when used at a concentration of 1 μM. Tryptophol (400 mg/kg) induces sleep in mice as assessed by loss of the righting reflex.³

References

- 1. Verbrugghe, E., Adriaensen, C., Martel, A., et al. Growth regulation in amphibian pathogenic chytrid fungi by the quorum sensing metabolite tryptophol. Front. Microbiol. 9:3277 (2019).
- Palmieri, A. and Petrini, M. Tryptophol and derivatives: Natural occurrence and applications to the synthesis of bioactive compounds. Nat. Prod. Rep. 36(3), 490-530 (2019).
- Feldstein, A., Chang, F.H., and Kucharski, J.M. Tryptophol, 5-hydroxytryptophol and 5-methoxytryptophol induced sleep in mice. Life Sci. 9(6), 323-329 (1970).

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

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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