

## 5-Methylindole

## Chemical Properties

|                   |                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| CAS No. :         | 614-96-0                                                                                                            |
| Formula:          | C <sub>9</sub> H <sub>9</sub> N                                                                                     |
| Molecular Weight: | 131.174                                                                                                             |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |

## Biological Description

|               |                                                                                                                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description   | 5-Methylindole is a biologically active indole that inhibits a variety of kinases in bacteria and animals and Tryptophan synthase in plants for leukaemia and Alzheimer's disease.                                                |
| Targets(IC50) | Others                                                                                                                                                                                                                            |
| In vitro      | 5-Methylindole enhances the bactericidal effects of multiple antibiotics in vitro against pathogens such as E. coli, MRSA, and P. aeruginosa. 5-Methylindole increases membrane permeability and facilitates antibiotic entry[1]. |

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 7.6237 mL | 38.1185 mL | 76.2369 mL |
| 5 mM  | 1.5247 mL | 7.6237 mL  | 15.2474 mL |
| 10 mM | 0.7624 mL | 3.8118 mL  | 7.6237 mL  |
| 50 mM | 0.1525 mL | 0.7624 mL  | 1.5247 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

- Li Z, Sun F, Fu X, Chen Y. 5-Methylindole kills various bacterial pathogens and potentiates aminoglycoside against methicillin-resistant Staphylococcus aureus. PeerJ. 2022 Sep 14;10:e14010.
- Sun F, Bian M, Li Z, Lv B, Gao Y, Wang Y, Fu X. 5-Methylindole Potentiates Aminoglycoside Against Gram-Positive Bacteria Including Staphylococcus aureus Persists Under Hypoionic Conditions. Front Cell Infect Microbiol. 2020 Feb 28;10:84.

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