

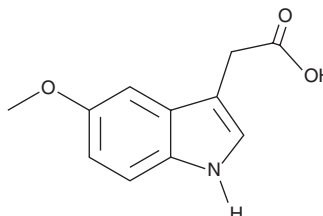
# PRODUCT INFORMATION



## 5-Methoxyindole-3-acetic Acid

Item No. 14019

**CAS Registry No.:** 3471-31-6  
**Formal Name:** 5-methoxy-1H-indole-3-acetic acid  
**Synonyms:** 5-methoxy IAA, 5-Methoxyindoleacetic Acid, 5-MIAA  
**MF:** C<sub>11</sub>H<sub>11</sub>NO<sub>3</sub>  
**FW:** 205.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 221, 276 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

5-Methoxyindole-3-acetic acid (5-MIAA) is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-MIAA in the solvent of choice, which should be purged with an inert gas. 5-MIAA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 5-MIAA in ethanol is approximately 10 mg/ml and approximately 20 mg/ml in DMSO and DMF.

5-MIAA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 5-MIAA should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 5-MIAA 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

5-MIAA is a methoxyindole that is synthesized in rat pineal gland, retina, and harderian gland.<sup>1</sup> Following conversion to a peroxy radical by horseradish peroxidase (HRP), 5-MIAA increases the rate of formation of thiobarbituric acid reactive substances (TBARS) in liposomes and is cytotoxic to V79 hamster cells.<sup>2,3</sup> *In vivo*, 5-MIAA (100 and 200 µg/animal) prolongs the estrous cycle and increases diestrous smears, uterine weight, the number of uterine follicles, and plasma levels of 17β-estradiol (Item No. 10006315) in female rats.<sup>1</sup>

### References

1. Ocal-Irez, T., Durmus, G., Sekerkiran, Y., *et al.* Effect of a pineal indolamine, 5-methoxyindole-3-acetic acid, on the estrous cycle and reproductive organs of female Wistar albino rats. *Brain Res.* **493(1)**, 1-7 (1989).
2. Candeias, L.P., Folkes, L.K., Porssa, M., *et al.* Enhancement of lipid peroxidation by indole-3-acetic acid and derivatives: Substituent effects. *Free Radic. Res.* **23(5)**, 403-418 (1995).
3. Folkes, L.K., Candeias, L.P., and Wardman, P. Toward targeted "oxidation therapy" of cancer: Peroxidase-catalysed cytotoxicity of indole-3-acetic acids. *Int. J. Radiat. Oncol. Biol. Phys.* **42(4)**, 917-920 (1998).

#### 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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