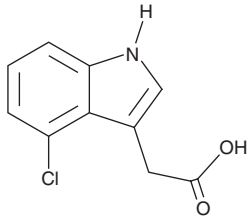
PRODUCT INFORMATION

4-Chloroindole-3-acetic Acid

Item No. 35534

CAS Registry No.:	2519-61-1
Formal Name:	4-chloro-1H-indole-3-acetic acid
Synonyms:	4-Cl-IAA, 4-chloro IAA, 4-Chloroindoleacetic Acid, NSC 295294
MF:	$C_{10}H_8ClNO_2$
FW:	209.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 223 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

4-Chloroindole-3-acetic acid (4-Cl-IAA) is supplied as a solid. A stock solution may be made by dissolving the 4-Cl-IAA in the solvent of choice, which should be purged with an inert gas. 4-Cl-IAA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4-Cl-IAA in DMSO is approximately 14 mg/ml and approximately 16 mg/ml in ethanol and DMF.

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 4-Cl-IAA can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 4-Cl-IAA in PBS (pH 7.2) is approximately 0.20 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

4-Cl-IAA is a halogenated plant auxin plant growth regulator that has been found in *P. sativum*.[1] It induces tobacco callus growth and biologically active alkaloid production in *Duboisia* root cultures when used at a concentration of 0.1 mg/ml. 4-Cl-IAA (1 µM) reduces heat stress-induced grain loss in wheat (*T. aestivum*).[2]

References

1. Reinecke, D.M. 4-Chloroindole-3-acetic acid and plant growth. *Plant Growth Regul.* **27**, 3-13 (1999).
2. Abeysingha, D.N., Ozga, J.A., Strydhorst, S., *et al.* The effect of auxins on amelioration of heat stress-induced wheat (*Triticum aestivum* L.) grain loss. *J. Agron. Crop. Sci.* **207(6)**, 970-983 (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