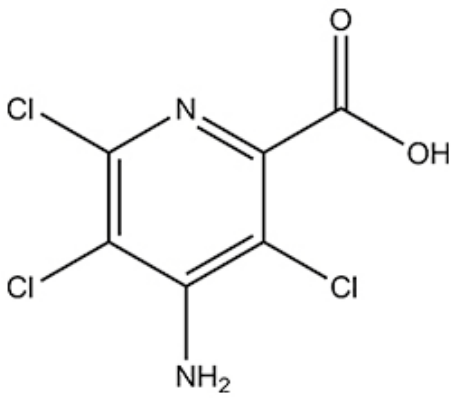
Product Information Sheet

P717

Picloram

Synonym:	4-Amino-3,5,6-trichloropicolinic Acid
CAS:	1918-02-1
Formula:	$C_6H_3Cl_3N_2O_2$
Molecular Wt:	241.48



Properties

Form:	Powder
Appearance:	Cream to Beige Powder
Application:	Plant Growth Regulator; Auxin
Solubility:	DMSO
Storage Temp:	Room Temperature
Typical Working Concentration:	Varies by application. Concentration should be determined by the end user.
Stock Solution Storage Temp:	2 to 6 °C
Other Notes:	Plant Tissue Culture Tested; For Research Use Only

Application Notes

Picloram has similar mode of actions to other auxins, e.g., adventitious root formation, induction of somatic embryos, cell division, callus formation and growth, inhibition of axillary buds, inhibition of root elongation. It is active over a wide range of plant species. Picloram has been reported to be a better choice of auxin over 2,4-D in inducing callus as it is active at a lower concentration.[2]

Typical working concentration of picloram varies by plant species. It has been reported that strawberry culture treated with 2 mg/L of picloram produced a high percentage of embryogenic calli and embryos at globular stage; while at 1 mg/L of picloram produced highest number of embryos at cotyledonary-stage.[3] Other plant species such as tomato have been reported to induce calli when treated with 2 mg/L (8.88 µM) of BA and 0.99 mg/L (4.13 µM) of picloram.[4] It has also been reported that sugarcane treated with 4 mg/L of picloram resulted in better callus induction and proliferation when compared with 2,4-D, IAA, and dicamba.[5]

Please Note: While *Phyto*Technology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References

1. *Merck* **13**, 7482
2. George, E.F. 1993. Plant propagation by tissue culture. Part 1: The Technology, 2nd Ed. Exegetics Ltd. Edington, Wilts. BA13 4QG, England.
3. Gerdakaneh, Mohammad and Majid Zohori. 2013. The effect of picloram on somatic embryogenesis of different explants of strawberry (*Fragaria ananassa* Duch.). *British Biotechnology Journal*. 3(2):133-142.
4. Soniya, E.V., N.S. Banerjee, and M.R. Das. 2001. Genetic analysis of somaclonal variation among callus-derived plants of tomato. *Current Science*. 80(9):1213-1215.
5. Khan, Imtiaz Ahmed, Muhammad Umar Dahot, Nighat Seema, Sajida Bibi, and Abdullah Khatri. 2008. Genetic variability in plantlets derived from callus culture of sugarcane. *Pak. J. Bot*. 40(2):547-564.

India Contact

Life Technologies (India) Pvt Ltd.
306, Agarwal City Mall, Road 44, Pitampura, Delhi - 110034 (India)
Tel: +91-11-4220-8000; 4220-8111; 4220-8222 Fax: +91-11-4220-8444, Mobile: +91-98105-21400
Email - customerservice@lifetechindia.com | customerservice@atzlabs.com