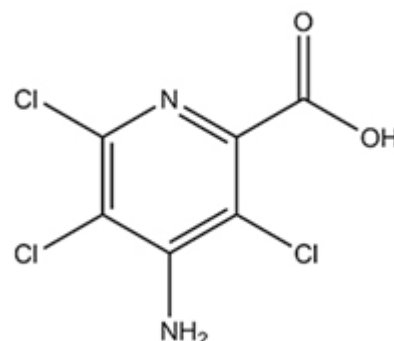


P717
Picloram

Synonym: 4-Amino-3,5,6-trichloropicolinic Acid
CAS: 1918-02-1
Formula: C₆H₃Cl₃N₂O₂
Molecular Wt: 241.46

**Properties:**

Form: Powder
Appearance: White to Off-White 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.
Other Notes: Plant Tissue Culture Tested*

*Please Note: While PhytoTech Labs Inc. 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.

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 callus 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 callus 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

PhytoTech Labs Inc. also carries Picloram Solution (1 mg/mL), Product No. P6717

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.