



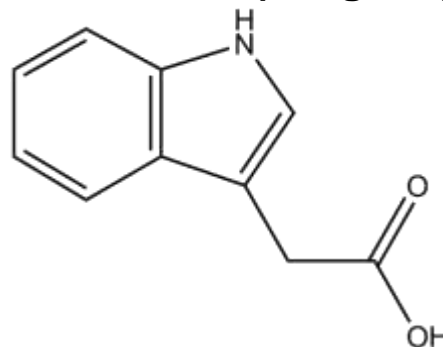
## Product Information Sheet

### I364 Indole-3-Acetic Acid Solution (1 mg/mL)

Synonym: IAA; Heteroauxin  
CAS: 87-51-4  
Formula: C<sub>10</sub>H<sub>9</sub>NO<sub>2</sub>  
MW: 175.18 g/mol

#### Properties:

Form: Liquid  
Appearance: Clear, colorless to yellow tint solution  
Application: Auxin  
Solubility: Miscible with water  
Typical Working Concentration: Varies by application, should be determined by the end user.  
Storage Temp: -20°C  
Other Notes: Plant Tissue Culture Tested; For Research Use Only



#### Application Notes:

IAA was the first plant hormone discovered and was initially called heteroauxin (Went and Thimann, 1937). IAA belongs to the auxin class of plant growth regulators that promote root organogenesis and growth, induce callus formation, form adventitious roots, aids in regulation of gravitropism and phototropism, and can induce embryogenesis. IAA can be synthesized in plants from the amino acid tryptophan (Hull *et al.* 2000).

IAA will retain 60% of its activity in MS media following a 60 minute autoclave cycle (Nissen and Sutter, 1990). IAA is also sensitive to light and metal salts, and will retain 50% of its original activity following 14 days in liquid MS media (Dunlap *et al.* 1986).

PhytoTechnology Laboratories® also carries IAA powder, Product No. I885.

Please Note: While *PhytoTechnology 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:

- Dunlap JR, Kresovich S, and R McGee (1986) The Effect of Salt Concentration on Auxin Stability in Culture Media. *Plant Physiol.* Vol. 81:934-936.
- Hull AK, Vij R, and JL Celenza (2000) *Arabidopsis* cytochrome P450s that catalyze the first step of tryptophan-dependent indole-3-acetic acid biosynthesis. *PNAS* Vol. 97(5):2379-2384
- Merck* **13**, 4986
- Nissen SJ, and E Sutter (1990) Stability of IAA and IBA in Nutrient Medium to Several Tissue Culture Procedures. *HortScience* Vol. 25(7):800-802
- Went FW, and KV Thimann (1937) *Phytohormones*. The Macmillan Company. New York.

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