

Product Name:	Indole-3-acetic acid
Product Number:	I014
CAS Number:	87-51-4
Molecular Formula:	C ₁₀ H ₉ NO ₂
Molecular Weight:	199.21
Form:	Powder
Appearance:	White to tan crystals
Source:	Synthetic
Melting Point:	165-170 °C
Storage Conditions:	-20 °C

Description: Indole-3-acetic acid (IAA) is an endogenous heterocyclic auxin plant hormone derived from indole. IAA is soluble in ethanol but not in water.

Plant Biology Applications IAA is an essential compound produced primarily in buds and developing plant leaves which induce transcription of genes involved in cell elongation and cell division in response to light and gravity. In tissue culture, IAA and other auxins are used because of their prominent effects on root formation in undifferentiated callus (Woodward and Bartel, 2005). In addition, IAA has also been shown to induce cell regeneration activity in plants when challenged with wounds.

References: Taiz L. and Zeiger E. Plant Growth Substances: Principles and Applications. Plant Physiology, 4th ed., Sinauer Associates, Sunderland, 2006

Franzoni, Luis. "Effect of Indoleacetic Acid on Wound-activated Ribonuclease in Potato Tuber Slices." ScienceDirect.com. N.p., n.d. Web. 11 Sept. 2012.

Woodward A.W and Bartel B., 2005. Auxin: Regulation, Action, and Interaction. Annals of Botany 95: 707–735, 2005.