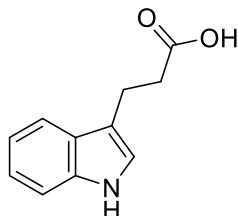


Indole-3-propionic acid

Code No.: **BIA-I2584**

Pack sizes: **25 mg, 100 mg**



Synonyms : IPA, IPA (auxin), NSC 3252, NSC 47831

Specifications

CAS #	: 830-96-6
Molecular Formula	: C ₁₁ H ₁₁ NO ₂
Molecular Weight	: 189.21
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

Indole-3-propionic acid is a tryptophan metabolite long recognised as a plant growth regulator. Indole-3-propionic acid is produced by microbiota in the human gut, including *Clostridium sporogenes*. Indole-3-propionic acid is a potent antioxidant and free radical scavenger that binds to the pregnane X receptor in intestinal cells, thereby facilitating mucosal homeostasis and protecting against intestinal epithelial barrier damage. Indole-3-propionic acid is neuroprotective in vivo, inhibiting β -amyloid fibril formation. Indole-3-propionic acid inhibits the growth of *E. coli* in vitro via its ability to block endogenous tryptophan formation.

References

1. Growth responses of various plants to 3-indolepropionic acid. Granick S. & Dunham H.W. Papers of the Michigan Academy of Science, Arts and Letters 1937, 22, 69.
2. Reactive oxygen intermediates, molecular damage, and aging. Relation to melatonin. Reiter R.J. et al. Ann NY Acad Sci. 1998, 854, 410.
3. Indole-3-propionic acid inhibits gut dysbiosis and endotoxin leakage to attenuate steatohepatitis in rats. Zhao Z-H. et al. Exp Molec Med. 2019, 51, 1.
4. Potent neuroprotective properties against the Alzheimer beta-amyloid by an endogenous melatonin-related indole structure, indole-3-propionic acid. Chan Y.J. et al. J Biol Chem. 1999 274, 31, 21937.