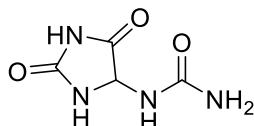


## Allantoin

Code No.: **BIA-A2579**

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



Synonyms : (±)-Allantoin, 1-(2,5-Dioxoimidazolidin-4-yl)urea, 5-Ureidohydantoin, Allantion, Allantol, Cordianine, DL-Allantoin, Glyoxyldiureid, Glyoxyldiureide, Glyoxylic diureide, NSC 7606, Psoralon, SD 101, Sebical, Septalan

## Specifications

CAS #	: <b>97-59-6</b>
Molecular Formula	: <b>C<sub>4</sub>H<sub>6</sub>N<sub>4</sub>O<sub>3</sub></b>
Molecular Weight	: <b>158.12</b>
Source	: <b><i>Symphytum officinale</i></b>
Appearance	: <b>White solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in methanol or DMSO</b>

## Application Notes

Allantoin is a metabolic intermediate of purine catabolism in plants widely used in the cosmetic industry as a moisturiser and aid to topical wound healing. Pharmacologically, allantoin has been demonstrated to activate imidazoline-3 (I3) receptors located in pancreatic tissues and ameliorate B-cell damage induced by streptozotocin. In Arabidopsis, allantoin activates abscisic acid (ABA) production, thereby stimulating stress-related gene expression and enhancing seedling tolerance to abiotic stress.

## References

1. Antinociceptive and anti-inflammatory effects of Memora nodosa and allantoin in mice. Florentino I.F. et al. J Ethnopharmacol. 2016, 186, 298.
2. Allantoin ameliorates chemically-induced pancreatic β-cell damage through activation of the imidazoline I3 receptors. Amitani M. et al. Peer J. 2015, e1105/1-e1105/15.
3. Allantoin, a stress-related purine metabolite, can activate jasmonate signaling in a MYC2-regulated and abscisic acid-dependent manner. Hiroshi T. et al. J. Exp. Botany 2016, 67, 2519.