

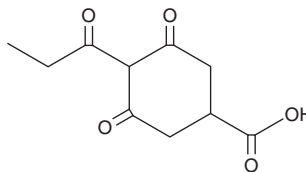
PRODUCT INFORMATION



Prohexadione

Item No. 33922

CAS Registry No.: 88805-35-0
Formal Name: 3,5-dioxo-4-(1-oxopropyl)-cyclohexanecarboxylic acid
Synonym: BX-112
MF: C₁₀H₁₂O₅
FW: 212.2
Purity: ≥98%
UV/Vis.: λ_{max}: 234, 274 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Prohexadione is supplied as a solid. A stock solution may be made by dissolving the prohexadione in the solvent of choice, which should be purged with an inert gas. Prohexadione is soluble in chloroform.

Description

Prohexadione is a plant growth regulator.¹ It inhibits the gibberellin plant hormone biosynthesis enzyme 3β-hydroxylase when used at concentrations of 0.1, 1, and 10 mM. It reduces the shoot length of peanut plants when applied at 0.5, 1.5, and 4.5 kg/hectare. Prohexadione also inhibits jumonji domain-containing 2A (JMJD2A) demethylase when used at a concentration of 1 mM and induces the differentiation of mouse neurospheres into neurons at 1, 1.5, and 2 mM.² Formulations containing prohexadione have been used as plant growth regulators in agriculture.

References

1. Brown, R.G.S., Kawaide, H., Yang, Y.-Y., *et al.* Daminozide and prohexadione have similar modes of action as inhibitors of the late stages of gibberellin metabolism. *Physiol. Plant.* **101(2)**, 309-313 (1997).
2. Vavilala, D.T., Reddy, S., Sachchidanand, *et al.* Prohexadione, a plant growth regulator, inhibits histone lysine demethylases and modulates epigenetics. *Toxicol. Rep.* **1**, 1152-1161 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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