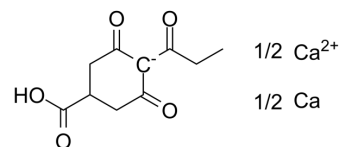


## Prohexadione calcium

<b>Cat. No.:</b>	HY-112105
<b>CAS No.:</b>	127277-53-6
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>11</sub> O <sub>5</sub> ·1/2Ca·1/2Ca
<b>Molecular Weight:</b>	251.27
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)
-----------------	--

### BIOLOGICAL ACTIVITY

<b>Description</b>	Prohexadione (BX-112) calcium is a plant growth regulator. Prohexadione inhibits gibberellin biosynthesis of plants <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Gibberellin biosynthesis <sup>[1]</sup>
<b>In Vitro</b>	Prohexadione (1 mM) calcium inhibits JMJD2A demethylase activity <sup>[2]</sup> . Prohexadione (1-2 mM) calcium induces the differentiation of mouse neurospheres into neurons <sup>[2]</sup> . Prohexadione (100 mg/L, sprayed on the leaves) calcium alleviates saline-alkali stress in soybean seedlings <sup>[3]</sup> . Prohexadione calcium induces structural resistance to fire blight infection in potted apple trees <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Vavilala DT, et al. Prohexadione, a plant growth regulator, inhibits histone lysine demethylases and modulates epigenetics. *Toxicol Rep.* 2014 Nov 4;1:1152-1161.
- [2]. Feng N, et al. Prohexadione-calcium alleviates saline-alkali stress in soybean seedlings by improving the photosynthesis and up-regulating antioxidant defense. *Ecotoxicol Environ Saf.* 2021 Sep 1;220:112369.
- [3]. Paulson GS, et al. Effect of a plant growth regulator prohexadione-calcium on insect pests of apple and pear. *J Econ Entomol.* 2005 Apr;98(2):423-31.
- [4]. McGrath MJ, et al. Evidence that prohexadione-calcium induces structural resistance to fire blight infection. *Phytopathology.* 2009 May;99(5):591-6.

---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA