

PRODUCT INFORMATION



Epibrassinolide

Item No. 20337

CAS Registry No.: 78821-43-9
Formal Name: (1R,3aS,3bS,6aS,8S,9R,10aR,10bS,12aS)-12a-dimethyl-1-[(1S,2R,3R,4R)-2,3-dihydroxy-1,4,5-trimethylhexyl]hexadecahydro-8,9-dihydroxy-10a6H-benz[c]indeno[5,4-e]oxepin-6-one

Synonyms: EBL, 24-Epibrassinolide

MF: C₂₈H₄₈O₆

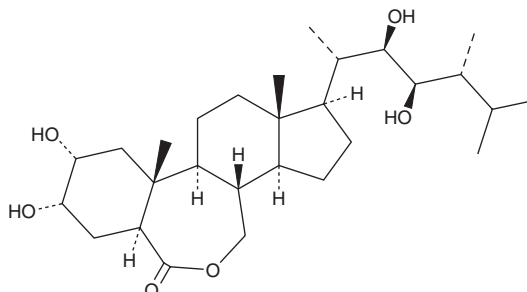
FW: 480.7

Purity: ≥95%

Supplied as: A crystalline 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

Epibrassinolide is supplied as a crystalline solid. A stock solution may be made by dissolving the epibrassinolide in the solvent of choice, which should be purged with an inert gas. Epibrassinolide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of epibrassinolide in ethanol and DMSO is approximately 3 mg/ml and approximately 5 mg/ml in DMF.

Epibrassinolide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, epibrassinolide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Epibrassinolide has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Epibrassinolide is a brassinosteroid that can be isolated from various plants and has been shown to decrease toxicity and stimulate healthy plant growth in plants under stress.¹ Epibrassinolide is also reported to be a potential apoptotic inducer in various cancer cells without affecting the non-tumor cell growth.² It has also been shown to protect neuronal PC12 cells from 1-methyl-4-phenylpyridinium-induced oxidative stress and consequent apoptosis in dopaminergic neurons.³

References

1. Sondhi, N., Bhardwaj, R., Kaur, S., *et al.* Isolation of 24-epibrassinolide from leaves of *Aegle marmelos* and evaluation of its antigenotoxicity employing *Allium cepa* chromosomal aberration assay. *Plant Growth Regul.* **54**(3), 217-224 (2008).
2. Obakan, P., Barrero, C., Coker-Gurkan, A., *et al.* SILAC-based mass spectrometry analysis reveals that epibrassinolide induces apoptosis via activating endoplasmic reticulum stress in prostate cancer cells. *PLoS One* **10**(9), 2015.
3. Carange, J., Longpré, F., Daoust, B., *et al.* 24-Epibrassinolide, a phytosterol from the brassinosteroid family, protects dopaminergic cells against MPP-induced oxidative stress and apoptosis. *J. Toxicol.* 392859 (2011).

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.

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