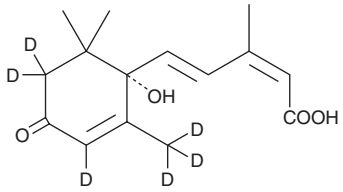
PRODUCT INFORMATION

(+)-Abscisic Acid-d_6

Item No. 29093

CAS Registry No.: 721948-65-8
Formal Name: (2Z,4E)-5-[(1S)-1-hydroxy-6,6-dimethyl-2-(methyl-d_3)-4-oxo-2-cyclohexen-1-yl-3,5,5-d_3]-3-methyl-2,4-pentadienoic acid
Synonyms: (+)-ABA-d_6, Dormin-d_6
MF: $C_{15}H_{14}D_6O_4$
FW: 270.4
Chemical Purity: ≥98% ((+)-Abscisic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

(+)-Abscisic acid (ABA)-d_6 is intended for use as an internal standard for the quantification of (+)-abscisic acid (Item No. 10073) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

(+)-ABA-d_6 is supplied as a solid. A stock solution may be made by dissolving the (+)-ABA-d_6 in the solvent of choice, which should be purged with an inert gas. (+)-ABA-d_6 is soluble in DMSO. (+)-ABA-d_6 is slightly soluble in ethanol and methanol.

Description

ABA is a plant hormone with diverse roles in disease resistance, plant development, and response to stresses (water, salt, temperature, and pathogens).[1-3] In addition to key roles in regulating stomatal closing, seed dormancy, and cell division, ABA regulates gene expression and may contribute to epigenetic changes at the chromatin level.[4] The (+)-enantiomer is the naturally occurring and more active form of ABA.

References

1. Ton, J., Flors, V., and Mauch-Mani, B. The multifaceted role of ABA in disease resistance. *Trends Plant Sci.* **14(6)**, 310-317 (2009).
2. Seo, M., Nambara, E., Choi, G., *et al.* Interaction of light and hormone signals in germinating seeds. *Plant. Mol. Biol.* **69(4)**, 463-472 (2009).
3. Acharya, B.R. and Assmann, S.M. Hormone interactions in stomatal function. *Plant Mol. Biol.* **69(4)**, 451-462 (2009).
4. Demetriou, K., Kapazoglou, A., Tondelli, A., *et al.* Epigenetic chromatin modifiers in barley: I. Cloning, mapping and expression analysis of the plant specific *HD2* family of histone deacetylases from barley, during seed development and after hormonal treatment. *Physiol. Plant.* **136(3)**, 358-368 (2009).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM