

# PRODUCT INFORMATION



## (+)-Abscisic Acid-d<sub>6</sub>

Item No. 29093

**CAS Registry No.:** 721948-65-8  
**Formal Name:** (2Z,4E)-5-[(1S)-1-hydroxy-6,6-dimethyl-2-(methyl-d<sub>3</sub>)-4-oxo-2-cyclohexen-1-yl-3,5,5-d<sub>3</sub>]-3-methyl-2,4-pentadienoic acid

**Synonyms:** (+)-ABA-d<sub>6</sub>, Dormin-d<sub>6</sub>

**MF:** C<sub>15</sub>H<sub>14</sub>D<sub>6</sub>O<sub>4</sub>

**FW:** 270.4

**Chemical Purity:** ≥98% ((+)-Abscisic Acid)

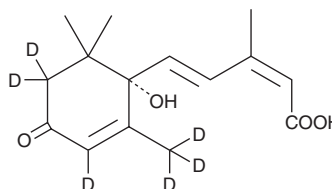
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>6</sub>); ≤1% d<sub>0</sub>

**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<sub>6</sub> 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<sub>6</sub> is supplied as a solid. A stock solution may be made by dissolving the (+)-ABA-d<sub>6</sub> in the solvent of choice, which should be purged with an inert gas. (+)-ABA-d<sub>6</sub> is soluble in DMSO. (+)-ABA-d<sub>6</sub> 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).<sup>1-3</sup> 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.<sup>4</sup> 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).

#### 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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