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DATASHEET

(+)-Abscisic acid

Product overview

Name	(+)-Abscisic acid
Cat No	HB4674
Description	Phytohormone and endogenous lanthionine synthetase C-like 2 (LANCL2) ligand
Alternative names	ABA
Biological action	Agonist
Purity	>99%

Biological Data

Biological description	Phytohormone and endogenous lanthionine synthetase C-like 2 (LANCL2) ligand. Regulates dormancy of plant seeds and other stress responses in plants. Able to regulate the expression of hundreds of plant genes via complex interactions with several intracellular signaling systems. Stimulates the activity of innate immune cells, insulin-releasing pancreatic B cells and plays an important role in managing glucose homeostasis. Also stimulates proliferation of human mesenchymal and hematopoietic stem cells. Can induce gene regulations as part of the chemically induced CRISPR–dCas9 system.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO (100mM) and ethanol (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	(2*Z*,4*E*)-5-[(1*S*)-1-Hydroxy-2,6,6-trimethyl-4-oxo-2-cyclohexen-1-yl]-3-methyl-2,4-pentadienoic acid
Molecular Weight	264.32
Molecular Formula	$C_{15}H_{20}O_4$
CAS Number	21293-29-8
PubChem identifier	5280896
SMILES	CC1=CC(=O)CC([C@]1(/C=C/C(=C\C(=O)O)/C)O)(C)C
InChi	InChI=1S/C15H20O4/c1-10(7-13(17)18)5-6-15(19)11(2)8-12(16)9-14(15,3)4/h5-8,19H,9H2,1-4H3,(H,17,18)/b6-5+,10-7-/t15-/m1/s1
InChiKey	JLIDBLDQVAYHNE-YKALOCIXSA-N
MDL number	MFCD00066545

References

G-protein coupling and nuclear translocation of the human abscisic acid receptor LANCL2

Fresia et al. (2016) Sci Rep. 6

PubMedID 27222287

The plant hormone abscisic acid stimulates the proliferation of human hemopoietic progenitors through the second

messenger cyclic ADP-ribose

Scarfi et al (2009) Stem Cells. 2469-77
PubMedID 19593794

CRISPR/Cas9-mediated mutagenesis of ClBG1 decreased seed size and promoted seed germination in watermelon

Wang et al (2021) Hortic Res. 021
PubMedID 33790265