

Product data sheet



MedKoo Cat#: 525972 Name: PBI-51 CAS: 130694-74-5 Chemical Formula: C ₁₅ H ₂₂ O ₃ Exact Mass: 250.1569 Molecular Weight: 250.338	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

PBI-51 is a competitive Inhibitor of Abscisic Acid-Regulated Gene Expression.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.99 mL	19.97 mL	39.95 mL
5 mM	0.80 mL	3.99 mL	7.99 mL
10 mM	0.40 mL	2.00 mL	3.99 mL
50 mM	0.08 mL	0.40 mL	0.80 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Yamazaki D, Yoshida S, Asami T, Kuchitsu K. Visualization of abscisic acid-perception sites on the plasma membrane of stomatal guard cells. *Plant J.* 2003 Jul;35(1):129-39. doi: 10.1046/j.1365-313x.2003.01782.x. PMID: 12834408.

2. Wilen RW, Hays DB, Mandel RM, Abrams SR, Moloney MM. Competitive Inhibition of Abscisic Acid-Regulated Gene Expression by Stereoisomeric Acetylenic Analogs of Abscisic Acid. *Plant Physiol.* 1993 Feb;101(2):469-476. doi: 10.1104/pp.101.2.469. PMID: 12231700; PMCID: PMC160593.

In vivo study

TBD

7. Bioactivity

Biological target:

PBI-51 is a competitive Inhibitor of Abscisic Acid-Regulated Gene Expression.

In vitro activity

PBI-51 displayed a reversible antagonistic effect with ABA, shifting the typical ABA dose-response curve by a factor of 4 to 5. This antagonism was noted for the expression of two ABA-sensitive genes, napin and oleosin. To test whether this antagonism was at the level of ABA recognition or uptake, ABA uptake was monitored in the presence of PBI-51 or PBI-63. Neither compound decreased

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ABA uptake. Treatments with either PBI-51 or PBI-63 showed an effect on endogenous ABA pools by permitting increases of 5- to 7-fold.

Reference: Plant Physiol. 1993 Feb;101(2):469-476. <https://pubmed.ncbi.nlm.nih.gov/12231700/>

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.