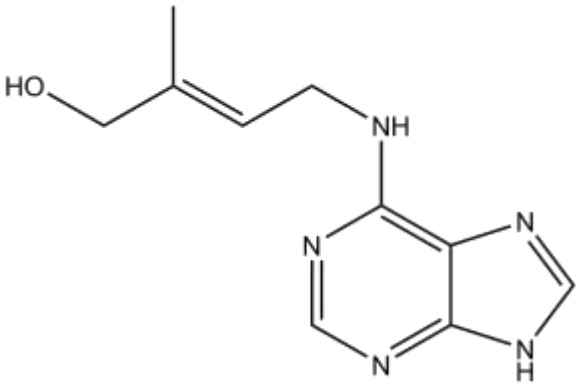
Z125
trans-Zeatin

Synonym:	(2E)-2-Methyl-4-(1H-purin-6-ylamino)-2-buten-1-ol
CAS:	1637-39-4
Formula:	$C_{10}H_{13}N_5O$
MW:	219.24 g/mol



Properties:

Form:	Powder
Appearance:	White to Beige Crystalline
Application:	Cytokinin
Solubility:	Minimum 10 mM KOH
Typical Working Concentration:	Varies by application, should be determined by the end user.
Storage Temp:	-20°C
Stock Solution Storage Temp:	-20°C
Other Notes:	Plant Tissue Culture Tested; For Research Use Only

Application Notes:

First isolated from corn (Miller 1961), *trans*-Zeatin is considered to be the most potent of all the adenine-based cytokinins (Schmitz *et al.* 1972). Zeatin like other cytokinins promotes cell division, shoot proliferation and organogenesis, aids in the maintenance of the shoot-apical meristem, disrupts apical dominance, and delays senescence.

trans-Zeatin is stable through one autoclave cycle (Hart *et al.* 2016)

*Phyto*Technology Laboratories® also carries trans-Zeatin solution (1 mg/mL), Product No. Z860.

Please Note: While *Phyto*Technology Laboratories™ tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References:

Hart DS, Keightley A, Sappington DS, Chritton C, Nguyen P, Seckinger GS, and KC Torres (2016) Stability of Adenine-Based Cytokinins. *In Vitro Cell. Dev. Biol.-Plant* Vol. 52(1):1-9

Miller CO (1961) A Kinetin-like Substance in Maize. *PNAS* Vol. 47: 170-174.

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Schmitz RY, Skoog F, Playtis AJ, and NJ Leonard (1972) Cytokinins: Synthesis and Biological Activity of Geometric and Position Isomers of Zeatin. *Plant Physiol.* Vol. 50:702-705.

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