CERTIFICATE OF ANALYSIS

trans-ZEATIN (tZ)
$C_{10}H_{13}N_5O$, MW = 219.25

OLCHEMIM CODE: 001 030
OLCHEMIM BATCH: (E)-Zea-D
MANUFACTURING DATE: Dec 2025
EXSPIRATION DATE: Dec 2033
CAS: 1637-39-4
BATCH SIZE: 1 g

SYNTHESIS

Prepared by condensation of 6-chloropurine and (E)-4-hydroxy-3-methylbut-2-enylamine hydrochloride and triethylamine in n-propanol. Purified by crystallization from water and methanol. Almost white, crystalline solid, very slightly soluble in water (20 °C). Soluble in hot water (90 °C), aqueous ethanol or methanol.

ANALYSIS

MELTING POINT: 213-215 ºC dec. (Kofler block)

UV

Determined after drying to constant weight over phosphorus pentoxide in vacuo.

pH 7 (H_2O)	λ_{max} 269.3 nm (17,900)
pH 2 (≅ 0.1 M HCl)	λ_{max} 276.5 nm (17,800)
pH 11 (≅ 0.1 M NaOH)	λ_{max} 275.8 nm (17,800)
50% EtOH	λ_{max} 269.4 nm (18,200)

TLC: (silica gel, Merck) chloroform-MeOH-conc. NH_4OH (4 : 1 : 0.1); Rf 0.42

MASS SPECTROMETRY: Matches the reference spectrum [M+H]$^+$= 220.07, ZMD 2000 (Waters) single quadrupole electrospray MS.

HPLC: RP 18, 2.1 x 150 mm, 5 µm (Waters); flow rate: 0.3 ml/min.; λ_{max} 269 nm

A: MeOH
B: 15mM $HCOONH_4$ buffer (pH = 4)
Starting ratio: B/A = 10/90, final ratio (after 25 minute): 90/10
Rt 5.9 min; purity 99+%, cis-isomer content < 0.05%.

STORAGE & STABILITY

Store in tightly sealed container at -18ºC. No detectable decomposition after 12 months storage under these conditions.

FOR LABORATORY USE BY EXPERIENCED PERSONNEL ONLY; NOT FOR DRUG, HOUSEHOLD OR OTHER USES

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