CERTIFICATE OF ANALYSIS

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

OLCHEMIM CODE: 001 032n
OLCHEMIM BATCH (Z)-Zea-C
MANUFACTURING DATE: April 2024
EXPIRATION DATE: April 2033
CAS: 32771-64-5
BATCH SIZE: 5 g

SYNTHESIS
Prepared by condensation of 6-chloropurine and (Z)-4-hydroxy-3-methylbut-2-enylamine oxalate. Purified by crystallization from water and n-propanol. White, microcrystalline solid, soluble in aqueous ethanol.

ANALYSIS
MELTING POINT: 209-211 °C
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 (70 : 30 : 3); Rf 0.33
MASS SPETROMETRY: Matches the reference spectrum $[M+H]^+$= 220.07, ZMD 2000 (Waters) single quadrupole electrospray MS.

HPLC : RP 18, 4.6 x 250 mm, 5 µm, (X-Terra column, Waters); 20% MeOH-80% AcOH/NH_4OH buffer, pH 3.4, 0.35 mL/min); Rt 13.4 min, purity 99+%, *trans*-zeatin max. 0.1 %.

STORAGE & STABILITY
Store in tightly sealed container at below 0°C. No detectable decomposition after 12 months storage under these conditions.

NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD A 266 nm in ethanol = 20.5 µg ml^{-1}.

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

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