CERTIFICATE OF ANALYSIS

trans-ZEATIN RIBOSIDE (ZR)
$C_{15}H_{21}N_5O_5$, MW = 351.37

OLCHEMIM CODE: 001 031n
OLCHEMIM BATCH (E)-ZeaR-C
MANUFACTURING DATE: August 2024
EXPIRATION DATE: August 2033
CAS: 6025-53-2
BATCH SIZE: 10 g

SYNTHESIS
Prepared by condensation of 6-chloropurine riboside and (E)-4-hydroxy-3-methylbut-2-enylamine oxalate. Chromatographically purified over silica gel and re-crystallised from water and propanol. A white, microcrystalline solid, soluble in aqueous ethanol.

ANALYSIS
MELTING POINT Very sharp melt 181-182ºC (Kofler block)
UV: Determined after drying to constant weight over phosphorus pentoxide *in vacuo*.

30 mM phosphate buffer, pH 7.2	Amax 269-271 nm (17,800)
0.1 M HCl	Amax 266 nm (18,550)
0.1 M NaOH	Amax 269-271 nm (18,300)

TLC (silica-chloroform/MeOH/conc. NH_4OH, 70/30/3, v/v); Rf 0.40. Purity 98+% at 25 µg loading. No contaminants detected, including 6-chloropurine riboside (Rf 0.64) or *cis*-zeatin riboside detected.
MASS SPETROMETRY: Matches the reference spectrum $[M]^+$= 352.09 amu, ZMD 2000 (Waters) single quadrupole electrospray MS.

HPLC RP 18, 150 x 4.0 mm, 5µm (X-Terra column, Waters); isocratic25% MeOH:75% AcOH/NH_4OH buffer, pH 3.4, 0.5 ml/min); Rt 16.2 min, purity 99+%, *cis*-isomer content < 0.05%.

STORAGE & STABILITY
Store over silica gel 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 270 nm in buffer = 19.7 µg/ml.

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

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