CERTIFICATE OF ANALYSIS

(RS)-DIHYDROZEATIN RIBOSIDE (DHZR)
$C_{15}H_{23}N_5O_5$, FW = 353.38

OLCHEMIM CODE: 001 061n
OLCHEMIM BATCH: DHZR-C
MANUFACTURING DATE: January 2025
EXPIRATION DATE: January 2033
CAS: 22663-55-4
BATCH SIZE: 20 g

SYNTHESIS
Condensation of 6-chloropurine riboside and (±)-4-amino-2-methylbutan-1-ol in n-BuOH containing triethylamine. Re-crystallised twice from EtOH/acetonitrile (1/2). A colourless, microcrystalline solid soluble in aqueous EtOH.

ANALYSIS
MELTING POINT: 217 – 218°C
UV: Determined after drying to constant weight over phosphorus pentoxide in vacuo

50% EtOH	λ_{max} 268 nm (17,400)
pH 2 (0.l M HCl)	λ_{max} 264 nm (20,000)
pH 11 (0.1 M NaOH)	λ_{max} 267 nm (18,500)

TLC (silica-chloroform/MeOH. 85/15, v/v), Rf 0.31. Purity 98+% at 25 µg and 50 µg loading. No contaminants detected at either load including 6-chloropurine riboside.
HPLC: (150x4.5 mm ODS, 0-30% acetonitrile, 30 min, 2 ml/min), Rt 16.2 min. Purity 98+%.
MASS SPECTROMETRY: Matches the reference spectrum $[M+H]^+$= 354.16 amu, ZMD 2000 (Waters) single quadrupole electrospray MS.
HPLC: Samples were dissolved in mobile phase (initial conditions) and separated on RP-column (150 mm × 4.6 mm, 5µm) (Microsorb C18; Varian). The elution was performed with a methanolic gradient. The flow rate was 0.6 ml/min. The UV absorbance was scanned between 240 – 300 nm. Rt (DHZR) = 12.7 min. Purity > 99+%.
STORAGE & STABILITY: ACID LABILE! HYGROSCOPIC!
Store over silica gel in tightly sealed container at –18°C. No detectable decomposition after 6 months storage under these conditions.
NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD at 268 nm in ethanol = 20.3 µg/ml.

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

OlChemIm s.r.o., Šlechtitelů 27, P.O.Box 22, 770 10 Olomouc, Czech Republic
Tel./Fax: +420 585 427 407
email:info@olchemim.cz, OlChemIm on the Internet: http://www.olchemim.cz