CERTIFICATE OF ANALYSIS

(RS)-DIHYDROZEATIN-9-β-D-GLUCOSIDE (DHZ9G)

6-(4-hydroxy-3-methylbutylamino)-9-β-D-glucopyranosylpurine

$C_{16}H_{22}N_5O_6$, FW = 383.41

OLCHEMIM CODE: 001 063n
MANUFACTURING DATE: May 2025
CAS: 73263-99-7

OLCHEMIM BATCH: DZ9G-C
EXPIRATION DATE: May 2034
BATCH SIZE: 1.2 g

SYNTHESIS

Prepared by the condensation of 6-chloropurine-9-β-D-glucopyranosyl and (±)-4-amino-2-methylbutan-1-ol in methanol containing triethylamine. Purified by reverse-phase chromatography and re-crystallized from methanol. A colourless, amorphous solid, soluble in aqueous alcohol.

ANALYSIS
MELTING POINT: 234 – 235°C (decomposition).
UV: Determined after drying to constant weight over phosphorus pentoxide in vacuo.

EtOH	λ_{max} 267 nm	(18,600)
0.1M aq. AcOH	λ_{max} 267 nm	(18,900)
0.2M ammonia/EtOH	λ_{max} 268 nm	(18,200)

TLC (silica-n-BuOH/14M ammonia/water, 6/1/2, upper phase). Rf 0.22. Purity 98+% at 25 µg loading.
TLC (silica-chloroform/methanol, 2/1, v/v), Rf 0.23. Purity 98+% at 25 µg loading.
TLC (silica-n-BuOH/AcOH/water, 12/3/5, v/v), Rf 0.48. Purity 98+% at 25 µg loading.
HPLC (150 x 4.5 mm ODS, 5-20% acetonitrile, 30 min, 2.0 ml/min), Rt 11.4 min, purity 98+ %.
MASS SPETROMETRY: Matches the reference spectrum $[M+H]^+$= 394.08 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 (DHZ9G) = 8.9 min. Purity > 98+%.
STORAGE & STABILITY: ACID LABILE! HYGROSCOPIC!
Store over silica gel in tightly sealed container at –18°C.
NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD at 267 nm in ethanol = 20.6 µg/ml.

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

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