CERTIFICATE OF ANALYSIS

meta-TOPOLIN RIBOSIDE (mTR)
$C_{17}H_{19}N_5O_5$, MW = 373. 37

OLCHEMIM CODE 001 011n
OLCHEMIM BATCH: mTR-C
MANUFACTURING DATE: July 2025
EXPIRATION DATE: July 2034
CAS: 110505-76-5
BATCH SIZE: 25 g

SYNTHESIS

Prepared by condensation of 6-chloropurine riboside and 3-hydroxybenzylamine in 1-propanol at presence of triethylamine. Re-crystallised from methanol. A white, microcrystalline solid, soluble in methanol or aqueous ethanol.

ANALYSIS

MELTING POINT: 198-199°C (Kofler block)

UV

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

pH 7 (H_2O)	λ_{max} 269.8 nm (18,900)
pH 2 (≅0.1 M HCl)	λ_{max} 265.6 nm (18,400)
pH 11 (≅0.1 M NaOH)	λ_{max} 269.5 nm (18,500)
50% EtOH	λ_{max} 270.0 nm (18,800)

TLC (silica-chloroform/MeOH/conc. NH_4OH, 75/25/3, v/v); Rf 0.80. Purity 98+% at 25 μg loading. No contaminants detected, including 6-chloropurine riboside (Rf 0.45) or *meta*-topolin detected.

MASS SPETROMETRY: Matches the reference spectrum $[M+H]^+$= 374.1 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 (10 mM HCOOH). The flow rate was 0.6 ml/min. The UV absorbance was scanned between 240 – 300 nm. Rt (mTR) = 7.65 min. Purity > 98+%.

^{1}H NMR (DMSO + D_2O): 8.30 (*s*, 1H) and 8.18 (*s*, 1H) purin, 7.06 (*dd*, 1H, *J* 7.0, *J* 8.0, Ph-m), 6.78/6.52 (*m*, 4H, Ph), 5.85 (*d*, 1H, *J* 9, H-1´), 4.62 (*bd*, 2H, CH_2Ph), 4.18-3.23m.

STORAGE & STABILITY

Store over silica gel in tightly sealed container at -18°C. 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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