CERTIFICATE OF ANALYSIS

m-TOPOLIN-RIBOSIDE-5'-MONOPHOSPHATE SODIUM SALT (*m*TRMP)

6-(3-hydroxy-benzylamino)-9-β-D-ribofuranosylpurine-5'-monophosphate disodium monohydrate

$C_{17}H_{18}N_5Na_2O_8P.H_2O$, FW = 515.34

OLCHEMIM CODE: 001 684n
MANUFACTURING DATE: March 2026
CAS: 946853-27-6

OLCHEMIM BATCH: 684-A
EXSPIRY DATE: March 2035
BATCH SIZE: 18 mg

SYNTHESIS

Prepared by the condensation of 6-chloropurine-riboside-5'-monophosphate and 4-aminomethylphenol in methanol at presence of N,N-diisopropyl-N-ethylamine. Purified preparative RP chromatography. White, microcrystalline solid, soluble in water, methanol and aqueous ethanol. Dissolves readily in water at 10 mg/mL to give a clear, colourless solution.

ANALYSIS

Melting range: > 200°C; dec.
TLC (silica gel, Merck; 2-propanol – conc. NH_4OH - water (55 : 10 : 35; v/v), Rf 0.64.
No *p*-topolin riboside present.
HPLC: (Waters C_{18} 5µm; 2.1x150mm; pH = 4.0 (15mM (ammonium formate); 2 to 90% methanol; initial: 2% methanol, 10minute isocratically; flow rate: 0.3ml/min), R_t = 24.63, purity 98.0+%.
HPLC-MS: $(M + H)^+$ = 454.24, $(M – H)^-$ = 452.22; purity 99+%

ENZYMATIC HYDROLYSIS

m-TMP (1 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (7.5 units) in 0.1 ml buffer. Incubation for 2 h at 37°C gives virtually complete (>98%) removal of phosphate with formation of a compound which co-chromatographed in 15% MeOH/chloroform with authentic *m*TR. No 6-chloropurine riboside detectable; 6-chloropurine riboside 5'-monophosphate content < 0.5 %.

STORAGE & STABILITY

Very hygroscopic. Store in tightly sealed container at –20 °C. No detectable decomposition after 6 months storage under these conditions.

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