CERTIFICATE OF ANALYSIS

2-METHYLTHIO-*trans*-ZEATIN RIBOSIDE (2MeSZR)
MW = 397.46

OLCHEMIM CODE: 001 518n
OLCHEMIM BATCH: 518-A
MANUFACTURING DATE: February 2023
EXPIRATION DATE: February 2033
CAS: 53274-45-6
BATCH SIZE: 1.5 g

SYNTHESIS
By condensation of 2-methylthio-6-chloropurine riboside and *trans*-4-amino-2-methylbut-2-enol hydrochloride. Chromatographically purified over silica and re-crystallised 2 times from ethyl acetate. Colourless plates/crystals, soluble in methanol.

ANALYSIS
MELTING POINT: 150.5-152°C (Kofler block)
UV: Determined after drying to constant weight over phosphorus pentoxide in vacuo.

50% EtOH	λ_{max} 243 nm (24,300)	λ_{max} 282 nm (17,200)
EtOH/0.1 M HCl	λ_{max} 245 nm (18,500)	λ_{max} 285 nm (15,500)
EtOH/0.1 M NaOH	λ_{max} 243 nm (24,700)	λ_{max} 282 nm (17,300)

HPLC (0 to 80% acetonitrile, 2 ml/min, 30 min, 25 x 0.4 cm ODS), Rt: MeSZ 14.2 min. No trace of *cis*-isomer. Product co-elutes with authentic compound in 1:1 mix. HPLC purity 99.0 %, no contaminants visible, no *cis* (<0.5%), very sharp peak, *cis/trans* separation checked.
TLC: (chloroform/methanol, 9:1). Shows single UV spot on admixing with equal amount of authentic compound (Rf 0.35), Rf tZR (0.28) and 2-methylthio-6-chloropurine riboside (Rf 0.60). No trace of faster running *cis*-isomer. No contaminants visible at 20 µg loading (cis < 1%).
MASS SPETROMETRY: Matches the reference spectrum $[M]^+$= 398.5 amu, ZMD 2000 (Waters) single quadrupole electrospray MS.

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

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