CERTIFICATE OF ANALYSIS

2-METHYLTHIO-N^6-ISOPENTENYLADENINE (2MeS-IP)
MW = 249.34

OLCHEMIM CODE: 001 507n
OLCHEMIM BATCH: 507-A
MANUFACTURING DATE: March 2024
EXPIRATION DATE: March 2034
CAS: 20758-33-2
BATCH SIZE: 5.8 g

SYNTHESIS

By condensation of 2-methylthio-6-chloropurine and 2-isopentenylamine hydrochloride. Chromatographically purified over silica and re-crystallised 3 times from ethanol. A pale yellow, microcrystalline solid, soluble in ethanol.

ANALYSIS

MELTING POINT: 259-260°C (Kofler block)

UV

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

50% EtOH	λ_{max} 241 nm (24,900)	λ_{max} 280 nm (16,400)
EtOH/0.1 M HCl	λ_{max} 252 nm	λ_{max} 292 nm
EtOH/0.1 M NaOH	λ_{max} 230 nm	λ_{max} 286 nm

HPLC (30 to 80% acetonitrile, 1 ml/min, 30 min, 25 x 0.4 cm ODS, 270 nm), Rt: MeS-iP 17.9 min. Product co-elutes with authentic compound in 1:1 mix. HPLC purity 98.4%, no contaminants visible (<1%), very sharp peak.

TLC: (chloroform/methanol, 9:1). Shows single UV spot on admixing with equal amount of authentic compound (Rf 0.91). No trace of faster running 2-methylthio-6-chloropurine (Rf 0.84). No contaminants visible at 10 µg loading (< 1%).

MASS SPETROMETRY: Matches the reference spectrum $[M]^+$= 250.1 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