CERTIFICATE OF ANALYSIS

N^6-(2-ISOPENTENYL)ADENINE-9-β-D-GLUCOSIDE

FW = 365.39

OLCHEMIM CODE: 001 023n
OLCHEMIM BATCH: iP9G-C
MANUFACTURING DATE: January 2024
EXPIRATION DATE: January 2034
CAS: 83087-94-9
BATCH SIZE: 5.6 g

SYNTHESIS

Isopentenyladenine-9-β-D-glucoside (iP9G) was prepared by the condensation of 6-chloropurine-9-β-D-glucoside and isopentenylamine.HCl in 1-butanol containing triethylamine. Re-crystallised twice from ethanol. iP9G has been purified by reverse-phase chromatography over C8 silica. A brilliant white, amorphous solid. Very sparingly soluble in alcohol or water. Dissolves readily in dimethyl sulphoxide (DMSO) at 10 mg/ml to give a clear, colourless solution.

ANALYSIS

MELTING POINT 224-225°C, no decomposition.

UV: Determined after drying to constant weight over calcium chloride in vacuo.

Ethanol	λ_{max} 268 nm (16,750)
20% ethanol/1M HCl	λ_{max} 264 nm (18,100)
20% ethanol/0.4M NH_4OH	λ_{max} 267 nm (16,500)

TLC (silica-chloroform/MeOH, 2/1,v/v). iP9G gives a single spot (Rf 0.52) at 20 and 50 µg loading. No detectable impurities, purity 98+%.

MASS SPETROMETRY: Matches the reference spectrum $[M+H]^+$= 366.1 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. The flow rate was 0.6 ml/min. The UV absorbance was scanned between 240 – 300 nm. Rt (iP9G) = 16.5 min. Purity > 99+%.

STORAGE. STABILITY & SAFETY

ACID-LABILE! VERY-HYGROSCOPIC! Store over silica gel in tightly-sealed container in the freezer at -18 °C. No toxicological data available for this compound. Treat as toxic and potentially mutagenic. Protect from light!

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