CERTIFICATE OF ANALYSIS

N^6-(2-ISOPENTENYL)ADENINE (iP)

6-(γ,γ-dimethylallylamino)purine

$C_{10}H_{13}N_5$, FW = 203.25

OLCHEMIM CODE: 001 016n
OLCHEMIM BATCH: iP-C
MANUFACTURING DATE: September 2024
EXPIRATION DATE: September 2034
CAS: 2365-40-4
BATCH SIZE: 1.2 kg

SYNTHESIS Condensation of 6-chloropurine and isopentenylamine hydrochloride in the presence of triethylamine. Re-crystallized 3 x from 90% aqueous methanol.

ANALYSIS: m.p. 210.0 – 212.0 °C. Colourless, microcrystalline solid. Dissolves readily in dichloromethane/methanol (1:1, v/v) at 5 mg/ml to give a clear, colourless solution.

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

water, pH 1	λ_{max} 273 nm	(18,600)	λ_{min} 235 nm
water, pH 7	λ_{max} 269 nm	(19,400)	λ_{min} 225 nm
water, pH 13	λ_{max} 275 nm	(18,100)	λ_{min} 240 nm

TLC (SILICA-DICHLOROMETHANE/METHANOL, 9/1). N^6-(2-isopentenyl)adenine gives a single, moderately-sharp spot (Rf 0.72) at 25 & 50 µg loading with no detectable contaminants. Purity 99+%. Co-chromatographs with SIGMA iP in 1:1 mix.

TLC (SILICA-ETHYL ACETATE). iP gives a single, sharp spot (Rf 0.04) at 25 & 50 µg loading with no detectable contaminants. Purity 99+%. Co-chromatographs with SIGMA iP in 1:1 mix. No detectable 6-chloropurine (Rf 0.19) at either 25 or 50 µg iP loading.

HPLC (150 x 2.1 mm X-Terra column /Waters/; gradient from 10% MeOH:90% buffer 15mM-$HCOONH_4$ pH 4 up to 90%MeOH (in 25min) followed by 10 min of isocratic elution (90% MeOH) at 0.3 mL/min; purity 99+%; no contaminants present.

MASS SPECTROMETRY: Passes the ESI(+) test; matches the reference spectrum with $[M^+]$ = 204.2.

^{1}H NMR (DMSO): in accordance

STORAGE & STABILITY: STABLE. Store over silica gel in tightly sealed container at around 4°C.

NOTE: Small packages contain approx. 10% more than the stated quantity. This is to ensure that you can dispense the required amount. However the product is unlikely to anhydrous

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

CERTIFICATE OF ANALYSIS

when it reaches you. For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD A 269 nm at pH 7 = 10.5 µg/ml.

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