CERTIFICATE OF ANALYSIS

N^6-(2-ISOPENTENYL)ADENOSINE 5'-MONOPHOSPHATE SODIUM SALT
iPMP, 97+%, FW = 477.33 as disodium monohydrate
FW = 415.35 as free acid

OLCHEMIM CODE: 001 504n
OLCHEMIM BATCH: 504-A
MANUFACTURING DATE: August 2024
EXPIRATION DATE: August 2034
CAS: 20268-93-3
BATCH SIZE: 3 g

SYNTHESIS

Prepared by the condensation of 6-chloropurine riboside 5'-monophosphate and 2-isopentenylamine. Purified by reverse phase and ion exchange chromatography. A colourless, microcrystalline solid. VERY HYGROSCOPIC. Dissolves readily in water at 10 mg/ml to give a clear, colourless solution.

ANALYSIS

MELTING POINT: ≅ 209°C

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

pH 7.0 (buffer)	λ_{max} 268 nm (21,000)
pH 2.0 (≅0.1M HCl)	λ_{max} 264 nm (20,400)
pH 11.0 (≅0.1M NaOH)	λ_{max} 268 nm (21,500)

TLC (cellulose-MeOH/isoPrOH/ammonia/water, (9/6/3/2, v/v), Rf 0.33. No contaminants visible at 20 µg loading. Purity 97+%.

HPLC (150 x 4.5 mm ODS, 0-15% MeOH/0.1M AcOH, 30 min, then 15 -80% for 10 min 2 ml/min), Rt 35.8 min, no detectable impurities, purity 97+%; iPR content (< 1%).

ENZYMATIC HYDROLYSIS

iPMP (2 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (7.5 units) in 0.1 ml buffer. Incubation for 1.5 h at 37°C gives virtually complete (>95%) removal of phosphate peak with formation of a compound which co-chromatographed in 15% MeOH/chloroform with authentic iPR (Rf 0.76). No 6-chloropurine riboside (Rf 0.55) detectable; 6-chloropurine-riboside 5'-monophosphate content < 0.1%.

STORAGE & STABILITY

CAUTION. HYGROSCOPIC! DO NOT EXPOSE TO AIR FOR PROLONGED PERIODS. Store dry over silica gel in tightly sealed container at -18°C. No detectable decomposition expected after 6 months storage under these conditions.

NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD A= 268 nm, aqueous pH 7.0 = 22.8 µg/ml.

FOR LABORATORY USE BY EXPERIENCED PERSONNEL ONLY; NOT FOR DRUG, HOUSEHOLD OR OTHER USES

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