CERTIFICATE OF ANALYSIS

KINETIN RIBOSIDE 5'-MONOPHOSPHATE
KMP, 97+%, FW = 489.30 as disodium monohydrate
FW = 427.31 (free acid)

OLCHEMIM CODE: 001 509n
OLCHEMIM BATCH: 509-A
MANUFACTURING DATE: August 2025
EXPIRATION DATE: August 2035
CAS: 13484-67-8
BATCH SIZE: 100 mg

SYNTHESIS

Prepared by the condensation of 6-chloropurine riboside 5'-monophosphate and furfurylamine. Purified by reverse phase and ion exchange chromatography. A microcrystalline, hygroscopic solid, soluble in water and aqueous ethanol.

ANALYSIS

Dissolves readily in water at 10 mg/ml to give a clear, colourless solution.
MELTING POINT: 172.7-186.3, completely 243°C
UV
Determined after drying to constant weight over phosphorus pentoxide in vacuo.

pH 7.0 (buffer)	λ_{max} 266 nm (20,200)
pH 2.0 (0.1M HCl)	λ_{max} 265 nm (19,500)
pH 11.0 (0.1M NaOH)	λ_{max} 266 nm (20,300)

TLC (cellulose-MeOH/isoPrOH/ammonia/water, (9/6/3/2, v/v), Rf 0.28. No contaminants visible at 50 µg loading. No kinetin riboside (KR) present (Rf 0.62). Purity 97+%.

HPLC (100 x 4.5 mm ODS, 0-15% MeOH/0.1M AcOH, 30 min, then 15 -80% for 10 min 2 ml/min), Rt 28.1 min, no detectable impurities, purity 97+%; KR content (< 1%).

ENZYMATIC HYDROLYSIS

KMP (1 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (10 units) in 0.1 ml buffer. Incubation for 4 h at 37°C gives virtually complete (>99%) removal of phosphate with formation of a compound which co-chromatographed in 15% MeOH/chloroform with authentic KR. No 6-chloropurine riboside 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.

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

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