CERTIFICATE OF ANALYSIS

(RS)-DIHYDROZEATIN RIBOSIDE 5'-MONOPHOSPHATE. SODIUM SALT
FW = 495.34 (as disodium monohydrate) (DZRMP)

OLCHEMIM CODE: 001 501n
OLCHEMIM BATCH: 501-A
MANUFACTURING DATE: June 2025
EXPIRATION DATE: June 2034
CAS: 31284-94-3
BATCH SIZE: 100 mg

SYNTHESIS

Prepared by the condensation of 6-chloropurine riboside 5'-monophosphate and (±)-4-amino-2-methylbutan-1-ol. Purified by reverse phase and ion exchange chromatography. A colourless, microcrystalline, hygroscopic solid, freely soluble in water.

ANALYSIS

UV

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

pH 7.0 (water) λ_{max} 270 nm (18,200)
pH 2.0 (≅0.1M HCl) λ_{max} 266 nm (16,000)
pH 11.0 (≅0.1M NaOH) λ_{max} 271 nm (16,300)

TLC (cellulose-MeOH/isoPrOH/ammonia/water. 9/6/3/2), Rf 0.19. No contaminants visible at 20 µg loading. Purity 95+%.

HPLC (150 x 4.5 mm ODS, 0-15% MeOH/0.1M AcOH, 30 min, 2 ml/min), tR 20.1 min, purity 95+%, dihydrozeatin riboside content (< 0.5%). Partial separation of diastereoisomers may occur on some HPLC columns.

ENZYMIC HYDROLYSIS

Dihydrozeatin riboside monophosphate (1 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (7.5 units) in 0.1 ml buffer. Incubation 1.5 h at 37°C gives virtually complete (>95%) removal of phosphate peak with formation of a compound, which co-chromatographed with dihydrozeatin riboside.

STORAGE & STABILITY

DIHYDROZEATIN RIBOSIDE 5'-PHOSPHATE IS VERY HYGROSCOPIC. DO NOT EXPOSE TO AIR FOR PROLONGED PERIODS. Store over silica gel in tightly sealed container at -18°C. Stability in aqueous solution: approximately 10% hydrolysis to dihydrozeatin riboside occurs on 4 months storage at 20°C.

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

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