CERTIFICATE OF ANALYSIS

R-(-)-DIHYDROZEATIN RIBOSIDE 5'-MONOPHOSPHATE, SODIUM SALT

FW = 497.35 (as disodium monohydrate)

(-DZMP), $C_{15}H_{24}N_5O_8P$, FW = 433.35 (free acid)

OLCHEMIM CODE: 028 501n
OLCHEMIM BATCH: A-198-B
MANUFACTURING DATE: August 2025
EXPIRATION DATE: August 2034
CAS: 174063-91-3
BATCH SIZE: 1.4 g

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.

(water) Amax 268 nm (E = 16,500)

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

HPLC (100 x 4.5 mm ODS, iso 5 & 20% MeOH/0.2M AcOH, 30 min, 2 ml/min), Rt 5 & 0.9 min, purity 95+%, dihydrozeatin riboside and 6-chloropurine riboside 5´-monophosphate detectable content (< 0.5%).

SPECIFIC ROTATION: $[\alpha]_D^{24}$ = -32.4° (2% aqueous NaOH; c = 3.6)

ENZYMIC HYDROLYSIS

Dihydrozeatin riboside monophosphate (1 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (8 U) in 0.1 ml buffer. Incubation 1 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 -20°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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