CERTIFICATE OF ANALYSIS

cis-ZEATIN RIBOSIDE 5'-MONOPHOSPHATE
cZMP, 95+%, FW = 493.33 as disodium monohydrate
FW = 431.35 as free acid
$C_{15}H_{20}N_5Na_2O_8P.H_2O$

OLCHEMIM CODE: 001 059n
OLCHEMIM BATCH cZMP-C
MANUFACTURING DATE: February 2025
EXPIRATION DATE: February 2033
CAS: 125225-71-0
BATCH SIZE: 130 mg

SYNTHESIS

Prepared by the condensation of 6-chloropurine riboside 5'-monophosphate and *cis*-4-hydroxy-3-methylbut-2-enylamine oxalate. Purified on silica-gel column and finally lyophilized. White, microcrystalline solid, soluble in water and aqueous ethanol. Dissolves readily in water at 10 mg/mL to give a clear, colourless solution.

ANALYSIS

Melting range: 195 – 200°C; dec.

TLC :(silica gel, Merck) n-propanol – conc. NH_4OH - water (11 : 7 : 2 v/v), Rf 0.5. No zeatin riboside (ZR) present.

HPLC : Column: Purospher RP-18e, 4 x 250 mm, 5 µm (Merck), MeOH-AcOH/NH_4OH buffer, pH 3.4 (15 : 85, gradient to 40 % MeOH). Purity 95+%.

ENZYMATIC HYDROLYSIS

cZMP (1 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (7.5 units) in 0.1 ml buffer. Incubation for 2 h at 37°C gives virtually complete (>98%) removal of phosphate with formation of a compound which co-chromatographed in 15% MeOH/chloroform with authentic cZR. No 6-chloropurine riboside detectable; 6-chloropurine riboside 5'-monophosphate content < 0.5 %.

STORAGE & STABILITY

Potentially hygroscopic. Store in tightly sealed container at –18 °C. No detectable decomposition 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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