CERTIFICATE OF ANALYSIS

N^6-BENZYLADENOSINE 5'-MONOPHOSPHATE
BAMP, 95+%, FW = 499.34 as disodium monohydrate
FW = 437.35 as free acid

OLCHEMIM CODE: 001 500n
OLCHEMIM BATCH: 500-A
MANUFACTURING DATE: December 2024
EXPIRATION DATE: December 2034
CAS: 13484-66-7
BATCH SIZE: 70 MG

SYNTHESIS

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

ANALYSIS

MELTING POINT: 102.9-146.9°C

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

pH 7.0 (buffer)	λ_{max} 268 nm (20,600)
pH 2.0 (0.1M HCl)	λ_{max} 265 nm (21,000)
pH 11.0 (0.1M NaOH)	λ_{max} 268 nm (21,000)

TLC (cellulose-MeOH/isoPrOH/ammonia/water, (9/6/3/2, v/v), Rf 0.25. No contaminants visible at 50 µg loading. No 6-benzyladenosine (BAR) present (Rf 0.82). Purity 97+%.

HPLC (150 x 2.1 mm Waters, 2% MeOH/98%15mM $HCOONH_4$ (pH = 4), 10 min., then 2 -90% MeOH for 15 min.; 2 ml/min), Rt 26.3 min, no detectable impurities, purity 97+%; BAR content (< 1%).

ENZYMATIC HYDROLYSIS

BAMP (2 mg) dissolved in glycine/NaOH buffer (1 ml, pH 10.4) containing alkaline phosphatase (10 units) in 0.1 ml buffer. Incubation for 2 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 BAR (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 in the freezer at -18 °C. May decompose on prolonged storage in hydroxylic solvents.

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

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