CERTIFICATE OF ANALYSIS

KINETIN-9-β-D-GLUCOSIDE (K9G)

[6-furfurylamino-9-β-D-glucopyranosylpurine]

FW = 377.36

OLCHEMIM CODE: 001 044n
MANUFACTURING DATE: April 2024
CAS: 98177-43-6

OLCHEMIM BATCH: K9G-C
EXPIRATION DATE: April 2032
BATCH SIZE: 2.25 g

SYNTHESIS

By condensation of 6-chloropurine-9-β-D-glucopyranoside and furfurylamine in 1-butanol. Re-crystallised twice from ethanol. Hygroscopic, colourless needles, soluble in aqueous ethanol.

ANALYSIS
MELTING POINT: 206.0-207.0 °C (Kofler block)
UV: Determined after drying to constant weight over calcium chloride in vacuo.

80% EtOH	λ_{max} 266 nm(18,400)
50% EtOH/1 M HCl	λ_{max} 265 nm (17,450)
80% EtOH/1 M NH_4OH	λ_{max} 266 nm (17,950)

TLC (silica-n-BuOH/14M ammonia/water, 6/1/2, upper phase), Rf 0.31. Purity 9%+% at 25 µg loading.

TLC (silica-chloroform/methanol, 2/1, v/v), Rf 0.48. Purity 95+% at 25 µg loading. No kinetin detectable (<1%).

TLC (silica-n-BuOH/AcOH/water, 12/3/5), Rf 0.66. Purity 95+% at 25 µg loading.

STORAGE & STABILITY: ACID-LABILE! HYGROSCOPIC!
Store over silica gel in tightly sealed container at -20°C. No detectable decomposition expected after 6 months storage under these conditions.
NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD A 266 nm in ethanol = 20.5 µg ml^{-1}.

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

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