CERTIFICATE OF ANALYSIS

KINETIN (6-furfurylaminopurine) (K), $C_{10}H_9N_5O$, FW = 215.22

OLCHEMIM CODE: 001 034n
OLCHEMIM BATCH: K-B
MANUFACTURING DATE: November 2024
EXPIRATION DATE: November 2033
CAS: 525-79-1
BATCH SIZE: 5 kg

SYNTHESIS

Reaction of 6-chloropurine and furfurylylamine in n-BuOH containing triethylamine. Re-crystallised twice from EtOH. White to nearly white crystals, free of foreign matter soluble in EtOH.

ANALYSIS

MELTING POINT: 267.0-269.0ºC (Kofler block)

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

H_2O λ_{max} 266.5 nm

EtOH λ_{max} 268.0 nm (18,650)

TLC (silica-chloroform/MeOH. 85/15, v/v), Rf 0.54. Purity 98+% at 25 µg and 50 µg loading. No contaminants detected at either load including 6-chloropurine (Rf 0.65).

MASS SPETROMETRY: Matches the reference spectrum $[M]^+$= 216.03 amu, ZMD 2000 (Waters) single quadrupole electrospray MS (source temperature 100 ºC, capillary voltage +3.0 kV, cone voltage +20 V, desolvation temperature 250 °C).

HPLC: Samples were dissolved in mobile phase (initial conditions) and separated on RP-column (150 mm □ 2.1 mm, 5µm)(Symmetry C18, Waters). The elution was performed with a methanolic gradient. The flow rate was 250 µl/min. The UV absorbance was scanned between 210 – 300 nm. Rt (K) = 18.9 min. Purity > 99+%.

STORAGE & STABILITY

Store over silica gel in tightly sealed container at 2 - 8ºC. No detectable decomposition after 12 months storage under these conditions.

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

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