CERTIFICATE OF ANALYSIS

trans-ZEATIN-7-ß-D-GLUCOSIDE (Z7G)
$C_{16}H_{23}N_5O_6$, MW = 381.39

OLCHEMIM CODE: 001 511n
OLCHEMIM BATCH: 511-A
MANUFACTURING DATE: August 2024
EXPIRATION DATE: August 2034
CAS: 38165-56-9
BATCH SIZE: 1.5 g

SYNTHESIS

Prepared by the condensation of 6-chloropurine-7-β-D-glucopyranosyl peracetate and *trans*-4-amino-2-methylbut-2-enol hydrochloride in methanol containing triethylamine. Purified by reverse-phase chromatography and re-crystallised from methanol. A colourless, amorphous solid, sparingly soluble in water or methanol. Best solvent dimethyl sulfoxide.

ANALYSIS
MELTINGPOINT: 269 – 274°C (decomposition).
UV: Determined after drying to constant weight over phosphorus pentoxide in vacuo.

(EtOH)	λ_{max} 278 nm (13,100)
(EtOH/1 M HCl)	λ_{max} 284 nm (18,250)
(EtOH/2 M ammonia)	λ_{max} 278 nm (12,965)
pH 7.2 (50 mM PBS, 0.15 NaCl)	λ_{max} 269.3 nm (17,900)
pH 2 (≅0.1 M HCl)	λ_{max} 276.5 nm (17,800)
pH 11 (≅0.1 M NaOH)	λ_{max} 275.8 nm (17,800)
50% EtOH	λ_{max} 269.4 nm (18,200)

TLC (silica-n-BuOH/AcOH/water, 12/3/5). Single sharp spot at Rf 0.40. No detectable impurities at 25 µg loading. No detectable Z (0.62), Z9G (0.47) or starting material (0.68). Purity 95+%

STORAGE & STABILITY: ACID LABILE! HYGROSCOPIC!
Store over silica gel in tightly sealed container at –18°C.
NOTE: For quantitative work, therefore, calculate concentration from UV absorption i.e. 1 OD at 278 nm in ethanol = 29.1 µg/ml.

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

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