CERTIFICATE OF ANALYSIS

cis-ZEATIN-O-GLUCOSIDE (cZOG)

6-((Z)-4-β-D-glucopyranosyloxy-3-methylbut-2-enylamino)purine

$C_{16}H_{23}N_5O_6$, MW = 381.39

OLCHEMIM CODE: 001 339n
MANUFACTURING DATE: May 2024
CAS: 71866-93-8

OLCHEMIM BATCH: cZOG-C
EXPIRATION DATE: May 2033
BATCH SIZE: 12 mg

SYNTHESIS: Based on condensation of 6-chloropurine and *cis*-4-β-D-glucopyranosyloxy-3-methylbut-2-enylamine. Purified by revers phase chromatography.
A white, crystalline solid, freely soluble in water and methanol.

ANALYSIS
MELTING POINT: no sharp m.p., slowly decomp. 150-190°C

TLC (silica-chloroform/methanol/conc. NH_4OH, 6/3/0.3, v/v/v). Rf 0.25,no contaminant detected, including 6-chloropurine. Purity 95+% at 25 µg loading. No cis-zeatin detected (Rf 0.63).

TLC (silica-nBuOH/AcOH/water, 12/3/5, v/v), Rf 0.55. Purity 95+% at 25 µg loading.

ENZYMIC HYDROLYSIS: cZOG (1 µmole) incubated with ß-glucosidase (SIGMA – G-0395, 20 U in 0.4 ml 60 mM Na acetate buffer, pH 5.3) for 1 h at 35°C shows >98% conversion into a compound which co-chromatographs in a 1:1 mix with cis-zeatin on TLC in chloroform/methanol, 3/2 (Rf 0.63) and in nBuOH/AcOH/water (12/3/5). Digestion with α-glucosidase (50 mM Na phosphate buffer, pH 6.7) under the same conditions showed < 1% production of *cis*-zeatin.
MASS SPETROMETRY: Matches the reference spectrum $[M]^+$= 382.5 amu, ZMD 2000 (Waters) single quadrupole electrospray MS.

HPLC: RP 18, 150 x 4.0 mm, 5µm (X-Terra column, Waters); isocratic 20% MeOH:80% AcOH/NH_4OH buffer, pH 3.4, 0.5 ml/min); Rt 8.95 min, purity 97+%, *trans*-isomer content < 0.05%.

STORAGE AND STABILITY: ACID LABILE! HYGROSCOPIC! Store over silica gel in tightly sealed container at –18°C.

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

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