CERTIFICATE OF ANALYSIS

trans-ZEATIN-9-GLUCOSIDE (tZ9G)

6-((E)-4-hydroxy-3-methylbut-2-enylamino)-9-β-D-glucopyranosylpurine

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

OLCHEMIM CODE: 001 047n
MANUFACTURING DATE: April 2025
CAS: 51255-96-0

OLCHEMIM BATCH: Z9G-C
EXPIRATION DATE: April 2035
BATCH SIZE: 2.6 G

SYNTHESIS

Prepared by the condensation of 6-chloropurine-9-β-D-glucoside 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, soluble in water or methanol. Best solvent dimethyl sulfoxide (10 mg/ml).

ANALYSIS
MELTING POINT: Softens above 235°C, melts sharply 240-241°C, no decomp.
UV: Determined after drying to constant weight over phosphorus pentoxide in vacuo.

EtOH	λ_{max} 268 nm (18,300)
0.1 M aq. AcOH	λ_{max} 267 nm (18,650)
EtOH/0.2 M ammonia	λ_{max} 268 nm (18,500)

TLC (silica-n-BuOH/14M ammonia/water, 6/1/2), Rf 0.22. Purity 98% at 20 µg loading.
TLC (silica-chloroform/methanol, 2/1), Rf 0.23. Purity 98% at 20 µg loading.
TLC (silica-n-BuOH/AcOH/water, 12/3/5), Rf 0.48. Purity 98% at 20 µg loading.
MASS SPECTROMETRY: MASS SPETROMETRY: Matches the reference spectrum
$[M+H]^+$= 382.18 amu, ZMD 2000 (Waters) single quadrupole electrospray MS.
HPLC: Samples were dissolved in mobile phase (initial conditions) and separated on RP-column (150 mm × 4.6 mm, 5µm) (Microsorb C18; Varian). The elution was performed with a methanolic gradient (10 mM HCOOH). The flow rate was 0.6 ml/min. The UV absorbance was scanned between 240 – 300 nm, λ_{max} 267 nm. Rt (Z9G) = 9.3 min. Purity > 98+%.

STORAGE & 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

OlChemIm s.r.o., Šlechtitelů 27, P.O.Box 22, 770 10 Olomouc, Czech Republic
Tel./Fax: +420 585 427 407
email:info@olchemim.cz, OlChemIm on the Internet: http://www.olchemim.cz