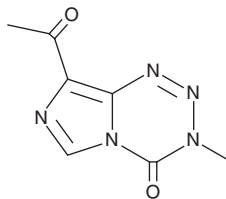


PRODUCT INFORMATION

K-TMZ

Item No. 27022

CAS Registry No.: 2269482-26-8
Formal Name: 8-acetyl-3-methyl-imidazo[5,1-d]-1,2,3,5-tetrazin-4(3H)-one
MF: C₇H₇N₅O₂
FW: 193.2
Purity: ≥95%
UV/Vis.: λ_{max}: 213, 331 nm
Supplied as: A 1 mg/ml solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

K-TMZ is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of K-TMZ in these solvents is approximately 10 mg/ml.

For maximum solubility in aqueous buffers, evaporate the methyl acetate and dissolve in ethanol. The ethanolic solution of K-TMZ should be diluted with the aqueous buffer of choice. K-TMZ has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

K-TMZ is a DNA alkylating agent.¹ It increases the concentration of O⁶-methylated deoxyguanosine in U87 glioblastoma multiforme (GBM) cells in a concentration-dependent manner. K-TMZ reduces cell viability of GBM cell lines lacking (IC₅₀s = 18-44 μM) or expressing O⁶-methylguanine DNA methyltransferase (MGMT; IC₅₀s = 115-240 μM). K-TMZ can cross the blood-brain barrier and increases survival in a Br23c mouse xenograft model of GBM when administered at a dose of 14.9 mg/kg.

Reference

1. Svec, R.L., Furiassi, L., Skibinski, C.G., *et al.* Tunable stability of imidazotetrazines leads to a potent compound for glioblastoma. *ACS Chem. Biol.* **13**(11), 3206-3216 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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