

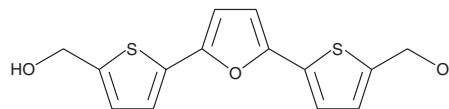
PRODUCT INFORMATION



RITA

Item No. 10006426

CAS Registry No.: 213261-59-7
Formal Name: 5,5'-(2,5-furandiyl)bis-2-thiophenemethanol
Synonyms: 2,5-bis(5-hydroxymethyl-2-thienyl) Furan, NSC 652287, Reactivation of p53 and Induction of Tumor Cell Apoptosis
MF: C₁₄H₁₂O₃S₂
FW: 292.4
Purity: ≥95%
UV/Vis.: λ_{max}: 265, 359 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

RITA is supplied as a crystalline solid. A stock solution may be made by dissolving the RITA in the solvent of choice, which should be purged with an inert gas. RITA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of RITA in these solvents is approximately 1, 20, and 30 mg/ml, respectively.

RITA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, RITA should first be dissolved in DMF and then diluted with the aqueous buffer of choice. RITA has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

RITA is an inhibitor of the protein-protein interaction between p53 and human double minute-2 (HDM-2).¹ It binds to p53 with an apparent K_d value of 1.5 nM and prevents the interaction between p53 and HDM-2. RITA induces DNA damage and apoptosis in, as well as inhibits the growth of, A498, TK-10, ACHN, and UO-31 renal carcinoma cells (GI₅₀s = 0.017, 0.032, 22.76, and 41.71 μM, respectively).² *In vivo*, RITA (10 mg/kg) reduces tumor volume in an HCT116 mouse xenograft model.¹ It also induces complete tumor regression in an A498 mouse xenograft model when administered at a dose of 45 mg/kg.²

References

1. Issaeva, N., Bozko, P., Enge, M., *et al.* Small molecule RITA binds to p53, blocks p53-HDM-2 interaction and activities p53 function in tumors. *Nat. Med.* **10(12)**, 1321-1328 (2004).
2. Rivera, M.I., Stinson, S.F., Vistica, D.T., *et al.* Selective toxicity of the tricyclic thiophene NSC 652287 in renal carcinoma cell lines. Differential accumulation and metabolism. *Biochem. Pharmacol.* **57(11)**, 1283-1295 (1999).

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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