

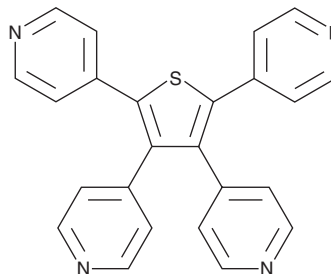
PRODUCT INFORMATION



GANT 58

Item No. 14193

CAS Registry No.: 64048-12-0
Formal Name: 4,4',4'',4'''-(2,3,4,5-thiophenetetrayl)
tetrakis-pyridine
Synonym: NSC 75503
MF: C₂₄H₁₆N₄S
FW: 392.5
Purity: ≥98%
UV/Vis.: λ_{max}: 264, 314 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

GANT 58 is supplied as a crystalline solid. A stock solution may be made by dissolving the GANT 58 in the solvent of choice, which should be purged with an inert gas. GANT 58 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of GANT 58 in these solvents is approximately 1.4, 1.1, and 2.5 mg/ml, respectively.

GANT 58 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, GANT 58 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. GANT 58 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

Hedgehog (hh) proteins, important regulators of development, bind the cell-surface protein Patched, allowing activation of Smoothened (Smo). In vertebrates, this ultimately leads to the activation of the zinc-finger transcription factors of the Gli family. Overactivation of this pathway contributes to certain cancers, including glioblastoma, for which the Gli proteins are named. GANT 58 is a Gli antagonist that inhibits Gli1-mediated transcription (EC₅₀ = 5 μM) in a variety of cell types.¹⁻³ It inhibits the hh signaling pathway downstream of Smo and the endogenous downstream inhibitor Sufu thereby affecting Gli1 nuclear accumulation.¹ GANT 58 displays antiproliferative and antitumor activity against Ewing sarcoma family of tumor cells.^{2,3}

References

1. Stanton, B.Z. and Peng, L.F. Small-molecule modulators of the Sonic Hedgehog signaling pathway. *Mol. BioSyst.* **6**(1), 44-54 (2010).
2. Joo, J., Christensen, L., Warner, K., et al. GLI1 is a central mediator of EWS/FLI1 signaling in Ewing tumors. *PLoS One* **4**(10), (2009).
3. Beauchamp, E., Bulut, G., Abaan, O., et al. GLI1 is a direct transcriptional target of EWS-FLI1 oncoprotein. *J. Biol. Chem.* **284**(14), 9074-9082 (2009).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM