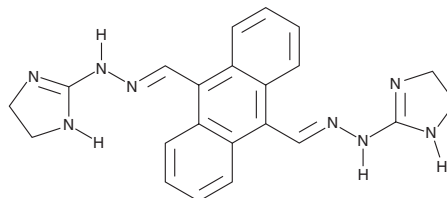


PRODUCT INFORMATION

Bisantrene

Item No. 40986

CAS Registry No.: 78186-34-2
Formal Name: 9,10-bis[(4,5-dihydro-1H-imidazol-2-yl)hydrazone]
 9,10-anthracenedicarboxaldehyde
Synonym: Bisantrenum
MF: C₂₂H₂₂N₈
FW: 398.5
Purity: ≥98%
Supplied as: A 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

Bisantrene is supplied as a solid. A stock solution may be made by dissolving the bisantrene in the solvent of choice, which should be purged with an inert gas. Bisantrene is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Bisantrene is an inhibitor of fat mass and obesity-associated protein (FTO; IC₅₀ = 142.6 nM in a cell-free assay).¹ It decreases the viability of Mono-Mac-6, NOMO-1, U937, MV4-11, and ML-2 acute myeloid leukemia (AML) cells (IC₅₀s = 58.9-175.9 nM), as well as increases the levels of N⁶-methyladenosine (m⁶A) in Mono-Mac-6 cells at 100 nM. Bisantrene induces apoptosis and cell cycle arrest at the G₀/G₁ phase in NOMO-1 cells. It induces ssDNA breaks and DNA-protein cross-links in L1210 skin lymphocytic leukemia cells when used at a concentration of 10 µg/ml.² Bisantrene (5 mg/kg per day) decreases tumor growth and increases survival time in a patient-derived xenograft (PDX) mouse model of AML.¹ Ex vivo, it induces primary mouse macrophage-mediated cytostasis of P815 mastocytoma cells when co-cultured after administration of a 100 mg/kg dose, an effect that can be inhibited by carrageenan.³

References

1. Su, R., Dong, L., Li, Y., *et al.* Targeting FTO suppresses cancer stem cell maintenance and immune evasion. *Cancer Cell* **38**(1), 79-96 (2020).
2. Bowden, G.T., Garcia, D.E., Peng, Y.-M., *et al.* Molecular pharmacology of the anthracycline drug 9,10-anthracenedicarboxaldehyde bis[(4,5-dihydro-1H-imidazol-2-yl)hydrazone] dihydrochloride (CI 216,942). *Cancer Res.* **42**(7), 2660-2665 (1982).
3. Wang, B.S., Lumanglas, A.L., Ruzsala-Mallon, V.M., *et al.* Activation of tumor-cytostatic macrophages with the antitumor agent 9,10-anthracenedicarboxaldehyde bis[(4,5-dihydro-1H-imidazole-2-yl)hydrazone] dihydrochloride (bisantrene). *Cancer Res.* **44**(6), 2363-2367 (1984).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 07/12/2024

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