# Trenimon

**Cat. No.:** HY-105740

**CAS No.:** 68-76-8

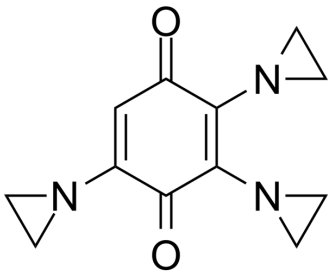
**Molecular Formula:** $C_{12}H_{13}N_3O_2$

**Molecular Weight:** 231.25

**Target:** DNA/RNA Synthesis

**Pathway:** Cell Cycle/DNA Damage

**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

**Description**

Trenimon is a compound with anti-cancer effects. Trenimon shows mutagenic actions in many species by inducing point and chromosomal mutations, sister-chromatid exchanges, recombination phenomena and phage induction. Trenimon can be used for the research of cancer[1][2][3][4].

**In Vitro**

Trenimon (0.17 mM) penetrates readily into mouse lymphoma cells in vitro[1].
Trenimon (0.17 nM; 5 min-16 h) time-denpendently reduces the priming activity of DNA[2].
Trenimon (1 nM-10 μM; 10-20 min) leds HeLa cells death after 2 weeks with a dose of 10 μM and dose-dependently suppresses mitosis in cells[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Trenimon (0.25 mg/kg; i.p. once) rapidly depresseas of the cellular elements of the peripheral blood (granulocytes, lymphocytes, reticulocytes, platelets and erythrocytes), and reduces the cell number of bone marrow[4].
Trenimon (0.03 mg/kg; i.v. once per week for 52 weeks) shows an cancerogenic effect in vivo[4].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | BR 46 male rats[4] |
| Dosage: | 0.03 mg/kg |
| Administration: | Intravenous injection; 0.03 mg/kg once per week for 52 weeks |
| Result: | Showed an cancerogenic effect and 24% animals developed malign tumors, and showed a induction time of the tumors is 16 months. |

## REFERENCES

[1]. Linford JH. 2,3,5-Tris-ethylenimino-1,4-benzoquinone (Trenimon): some chemical and biological properties. Chem Biol Interact. 1973 Mar;6(3):149-68.

[2]. GRUNICKE H, et al. THE EFFECTS OF THE ALKYLATING CYTOSTATIC AGENT, 2,3,5-TRISETHYLENEIMINO-BENZOQUINONE-1,4(TRENIMON), ON THE PRIMING ABILITY OF DNA FROM MOUSE-ASCITES-TUMOR CELLS IN THE RNA-POLYMERASE-SYSTEM. Biochem Biophys Res Commun. 1965 Feb 3;18:319-24.

[3]. Wegehaupt S, Sehrbundt HJ. Cytologische Untersuchungen an HeLa-Zellen nach kurzfristigen 2,3,5-Trisathyleniminobenzochinon-1,4-Gaben (Trenimon-R) [Cytologic studies on HeLa cells following short-spaced doses of 2,3,5-trisethyleniminobenzoquinone-1,4 (Trenimon-R)]. Naturwissenschaften. 1967 Mar;54(5):123. German.

[4]. Obe G, Beek B. Trenimon: biochemical, physiological and genetic effects on cells and organisms. Mutat Res. 1979 Mar;65(1):21-70.



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