Nitromifene

Cat. No.: HY-100266

CAS No.: 10448-84-7

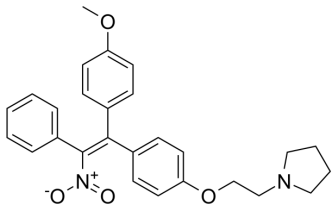
Molecular Formula: $C_{27}H_{28}N_2O_4$

Molecular Weight: 444.52

Target: Estrogen Receptor/ERR

Pathway: Others

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



BIOLOGICAL ACTIVITY

Description	Nitromifene is an antagonist of estrogen receptor (ER).
IC_{50} & Target	ER[1]
In Vitro	Nitromifene is an antagonist of estrogen receptor (ER). At 0.5 μM and 1.0 μM concentrations, Nitromifene inhibits MCF 7 cell proliferation to 70% of that in drug-free controls. At higher concentrations, Nitromifene is clearly more effective than other metabolites. Specifically bound estradiol is displaced from intact MCF 7 cells by Nitromifene. Nitromifene is an effective antagonist of the ability of calmodulin (CM) to activate cyclic nucleotide phosphodiesterase[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay	MCF 7 cells are used in this study. The experiment is carried out in 6-well cluster plates. To each well is added 5 mL of a suspension of 2×10^5 cells in log phase growth. Medium is changed after 48 h and after 96 h, medium is replaced with 5 mL of serum-free medium containing 2 nM of the radioligand. Nitromifene is dissolved in DMSO (5 μL) to give final concentrations of 0, 0.01, 0.03, 0.1, 0.3, 1, 3, and 10 μM. Nonspecific binding is determined in incubations to which the radioinert counterpart of the radioligand is added at a concentration of 1 μM. Incubations are run in triplicate for 1 h at 37°C. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ruenitz PC, et al. Characterization of MCF 7 breast cancer cell growth inhibition by the antiestrogen nitromifene (CI 628) and selected metabolites. J Steroid Biochem. 1989 Sep;33(3):365-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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