

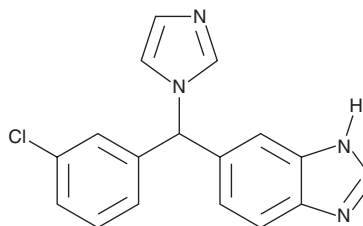
PRODUCT INFORMATION



Liarozole

Item No. 29491

CAS Registry No.: 115575-11-6
Formal Name: 6-[(3-chlorophenyl)-1H-imidazol-1-ylmethyl]-1H-benzimidazole
Synonym: R 75251
MF: C₁₇H₁₃ClN₄
FW: 308.8
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

Liarozole is supplied as a solid. A stock solution may be made by dissolving the liarozole in the solvent of choice, which should be purged with an inert gas. Liarozole is soluble in DMSO.

Description

Liarozole is an inhibitor of the cytochrome P450 (CYP) isoform CYP26A1 (IC₅₀ = 2.1 μM), an enzyme involved in the metabolism of all-*trans* retinoic acid (Item No. 11017).¹ It also inhibits the production of estradiol (Item No. 10006315) induced by follicle-stimulating hormone (FSH) in rat granulosa cells and testosterone and androstenedione production induced by human chorionic gonadotropin (hCG) in rat testicular cells (IC₅₀s = 0.4, 2.3, and 0.7 μM, respectively).² Liarozole enhances the antiproliferative activity of all-*trans* retinoic acid in MCF-7 breast cancer cells.³ It decreases plasma levels of retinoic acid in rats in a dose-dependent manner.⁴ Liarozole (5 and 20 mg/kg) decreases estradiol undecylate-induced vaginal keratinization in ovariectomized rats.

References

1. Thatcher, J.E., Buttrick, B., Shaffer, S.A., *et al.* Substrate specificity and ligand interactions of CYP26A1, the human liver retinoic acid hydroxylase. *Mol. Pharmacol.* **80**(2), 228-239 (2011).
2. Bruynseels, J., De Coster, R., Rooy, P.V., *et al.* R 75251, a new inhibitor of steroid biosynthesis. *Prostate* **16**(4), 345-357 (1990).
3. Wouters, W., van Dun, J., Dillen, A., *et al.* Effects of liarozole, a new antitumoral compound, on retinoic acid-induced inhibition of cell growth and on retinoic acid metabolism in MCF-7 human breast cancer cells. *Cancer Res.* **52**(10), 2841-2846 (1992).
4. Van Wauwe, J., Van Nyen, G., Coene, M.C., *et al.* Liarozole, an inhibitor of retinoic acid metabolism, exerts retinoid-mimetic effects *in vivo*. *J. Pharmacol. Exp. Ther.* **261**(2), 773-779 (1992).

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