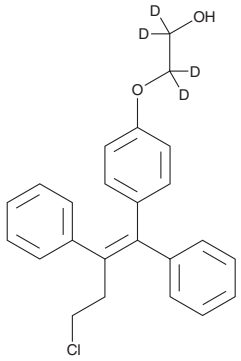
PRODUCT INFORMATION

Ospemifene-d_4

Item No. 33465



Formal Name:	2-[4-[(1Z)-4-chloro-1,2-diphenyl-1-buten-1-yl]phenoxy]-ethanol-1,1,2,2-d_4
Synonym:	FC-1271a-d_4
MF:	$C_{24}H_{19}ClD_4O_2$
FW:	382.9
Chemical Purity:	≥98% (Ospemifene)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_4); ≤1% d_0
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

Ospemifene-d_4 is intended for use as an internal standard for the quantification of ospemifene (Item No. 23755) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Ospemifene-d_4 is supplied as a solid. A stock solution may be made by dissolving the ospemifene-d_4 in the solvent of choice, which should be purged with an inert gas. Ospemifene-d_4 is soluble in acetonitrile.

Description

Ospemifene is a non-hormonal selective estrogen receptor modulator (SERM).[1] It binds to estrogen receptor α (ERα) and ERβ (K_is = 380 and 410 nM, respectively). It increases vaginal weight and vaginal epithelial height (ED_{50}s = 0.48 and 0.39 mg/kg per day, respectively) in an ovariectomized rat model of menopause. Ospemifene also increases progesterone receptor protein expression in vaginal epithelium and stroma and inhibits estrogen response element-mediated transactivation induced by 17β-estradiol (Item No. 10006315) in a reporter assay using MCF-7 cells. Formulations containing ospemifene have been used in the treatment of vulvar and vaginal atrophy-induced dyspareunia.

Reference

1. Unkila, M., Kari, S., Yatkin, E., *et al.* Vaginal effects of ospemifene in the ovariectomized rat preclinical model of menopause. *J. Steroid Biochem. Mol. Biol.* **138**, 107-115 (2013).

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