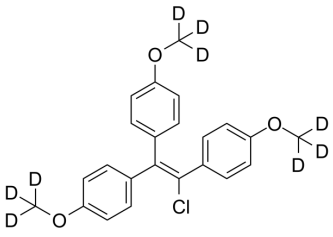
Chlorotrianisene-d9

Cat. No.:	HY-B2158S
CAS No.:	1276197-26-2
Molecular Formula:	$C_{23}H_{12}D_9ClO_3$
Molecular Weight:	389.92
Target:	Estrogen Receptor/ERR; COX
Pathway:	Others; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Chlorotrianisene-d9 is the deuterium labeled Chlorotrianisene. Chlorotrianisene is a long-acting non-steroidal estrogen and an orally active estrogen receptor modulator. Chlorotrianisene exhibits antiestrogenic activity. Chlorotrianisene potently inhibits the enzyme COX-1 and inhibits platelet aggregation in whole blood[1][2][3].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Ruenitz PC, et al. Estrogenic tamoxifen derivatives: categorization of intrinsic estrogenicity in MCF-7 cells. J Steroid Biochem Mol Biol. 1997 Nov-Dec;63(4-6):203-9.

[3]. Lounkine E, et al. Large-scale prediction and testing of drug activity on side-effect targets. Nature. 2012 Jun 10;486(7403):361-7.

[4]. Kupfer D, et al. Inactivation of the uterine estrogen receptor binding of estradiol during P-450 catalyzed metabolism of chlorotrianisene (TACE). Speculation that TACE antiestrogenic activity involves covalent binding to the estrogen receptor. FEBS Lett. 1990 Feb 12;261(1):59-62.

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