Fulvestrant-d_3

Cat. No.: HY-13636S

Molecular Formula: $C_{32}H_{44}D_3F_5O_3S$

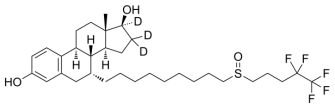
Molecular Weight: 609.79

Target: Estrogen Receptor/ERR; Autophagy; Apoptosis; Isotope-Labeled Compounds

Pathway: Vitamin D Related/Nuclear Receptor; Autophagy; Apoptosis; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (409.98 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6399 mL	8.1995 mL	16.3991 mL
	5 mM	0.3280 mL	1.6399 mL	3.2798 mL
	10 mM	0.1640 mL	0.8200 mL	1.6399 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Fulvestrant-d_3 is the deuterium labeled Fulvestrant. Fulvestrant (ICI 182780) is a pure antiestrogen and a potent estrogen receptor (ER) antagonist with an IC50 of 9.4 nM. Fulvestrant is also a GPR30 agonist. Fulvestrant effectively inhibits the growth of ER-positive MCF-7 cells with an IC50 of 0.29 nM. Fulvestrant also induces autophagy and has antitumor efficacy[1].

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

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[3]. Osborne CK, et al. Fulvestrant: an oestrogen receptor antagonist with a novel mechanism of action. Br J Cancer. 2004 Mar;90 Suppl 1:S2-6.

[4]. Garner F, et al. RAD1901: a novel, orally bioavailable selective estrogen receptor degrader that demonstrates antitumor activity in breast cancer xenograft models. Anticancer Drugs. 2015 Oct;26(9):948-56

[5]. Yu X, et al.MiR-214 increases the sensitivity of breast cancer cells to tamoxifen and fulvestrant through inhibition of autophagy.Mol Cancer. 2015 Dec 15;14:208.

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