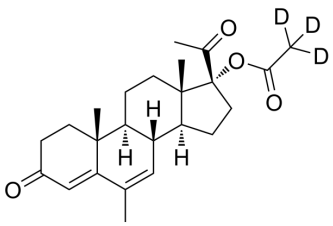
Megestrol acetate-d_3-1

Cat. No.:	HY-13676S1
Molecular Formula:	$C_{24}H_{29}D_3O_4$
Molecular Weight:	387.53
Target:	Progesterone Receptor; Autophagy; HIV; Isotope-Labeled Compounds
Pathway:	Vitamin D Related/Nuclear Receptor; Autophagy; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Megestrol acetate-d_3-1 is deuterium labeled Megestrol acetate. Megestrol acetate is a synthetic and orally active progesteronal agent. Megestrol acetate is effective as an appetite stimulant for wasting syndromes such as cachexia. Megestrol acetate decreases nuclear and cytosol androgen receptors human BPH tissue. Megestrol acetate has the potential for HIV study and downregulates autophagic catabolic pathway[1][2][3][4][5].
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]. J Geller, et al. Acute therapy with megestrol acetate decreases nuclear and cytosol androgen receptors in human BPH tissue. Prostate. 1982;3(1):11-5.

[3]. J H von Roenn, et al. Megestrol acetate for treatment of cachexia associated with human immunodeficiency virus (HIV) infection. Ann Intern Med. 1988 Nov 15;109(10):840-1.

[4]. L Panasci, et al. Sensitization to doxorubicin resistance in breast cancer cell lines by tamoxifen and megestrol acetate. Biochem Pharmacol. 1996 Oct 11;52(7):1097-102.

[5]. S A Beck, et al. Effect of megestrol acetate on weight loss induced by tumour necrosis factor alpha and a cachexia-inducing tumour (MAC16) in NMRI mice. Br J Cancer. 1990 Sep;62(3):420-4.

[6]. Vincenzo Musolino, et al. Megestrol acetate improves cardiac function in a model of cancer cachexia-induced cardiomyopathy by autophagic modulation. J Cachexia Sarcopenia Muscle. 2016 Dec;7(5):555-566.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA