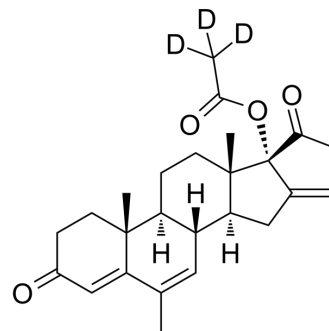


## Melengestrol acetate-d<sub>3</sub>

<b>Cat. No.:</b>	HY-111614S2		
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>29</sub> D <sub>3</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	399.54		
<b>Target:</b>	Progesterone Receptor		
<b>Pathway:</b>	Vitamin D Related/Nuclear Receptor		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

#### Description

Melengestrol acetate-d<sub>3</sub> is the deuterium labeled Melengestrol acetate. Melengestrol acetate is a progesterone derivative, acts as an orally active corticosteroid hormone to promote endometrial proliferation, pregnancy maintenance, and delay of menstrual activity[1]. Melengestrol Acetate is used as a contraceptive agent for growth promoting effects and suppression of estrus in animals. Melengestrol acetate inhibits both the androgen-dependent and -independent prostatic tumors in vivo and can be used for cancer research[2].

#### 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<sup>[1]</sup>.  
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]. G M Padilla, et al. Melengestrol acetate and megestrol acetate are prostatic tumor inhibiting agents. *Biochem Cell Biol.* 1990 Oct;68(10):1181-8.
- [3]. G W DUNCAN, et al. BIOLOGIC EFFECTS OF MELENGESTROL ACETATE. *Fertil Steril.* Jul-Aug 1964;15:416-32.
- [4]. <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/melengestrol-acetate>

**Caution: Product has not been fully validated for medical applications. For research use only.**

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