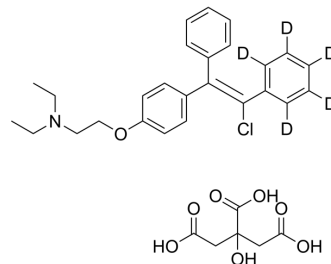


## Zuclomiphene-d<sub>5</sub> citrate

<b>Cat. No.:</b>	HY-B1617AS1
<b>CAS No.:</b>	1795132-80-7
<b>Molecular Formula:</b>	C <sub>32</sub> H <sub>31</sub> D <sub>5</sub> ClNO <sub>8</sub>
<b>Molecular Weight:</b>	603.11
<b>Target:</b>	Estrogen Receptor/ERR
<b>Pathway:</b>	Vitamin D Related/Nuclear Receptor
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Zuclomiphene-d <sub>5</sub> (citrate) is the deuterium labeled Zuclomiphene citrate[1]. Zuclomiphene citrate is a cis isomer of Clomiphene citrate. Zuclomiphene citrate has an antiestrogenic effect and can inhibit the secretion of luteinizing hormone (LH) more than the trans isomer. Zuclomiphene citrate is also an orally active hypocholesterolemic agent[2][3][4][5].
<b>In Vitro</b>	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 Feb;53(2):211-216.
- [2]. Fontenot GK, et al. Differential effects of isomers of clomiphene citrate on reproductive tissues in male mice. *BJU Int*. 2016 Feb;117(2):344-50.
- [3]. Mikkelsen TJ, et al. Single-dose pharmacokinetics of clomiphene citrate in normal volunteers. *Fertil Steril*. 1986 Sep;46(3):392-6.
- [4]. Sutherland RL. Estrogen antagonists in chick oviduct: antagonist activity of eight synthetic triphenylethylene derivatives and their interactions with cytoplasmic and nuclear estrogen receptors. *Endocrinology*. 1981 Dec;109(6):2061-8.
- [5]. Ramsey RB, et al. The biochemical and morphological response of hydrolytic enzymes in the developing brain to hypocholesterolemic agents. *Acta Neuropathol*. 1980;49(2):89-94.

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

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