

# PRODUCT INFORMATION



## Enclomiphene (citrate)

Item No. 30965

CAS Registry No.: 7599-79-3

Formal Name: 2-[4-[(1E)-2-chloro-1,2-diphenylethenyl]phenoxy]-N,N-diethyl-ethanamine, 2-hydroxy-1,2,3-propanetricarboxylate

Synonym: *trans*-Clomiphene

MF:  $C_{26}H_{28}ClNO \cdot C_6H_8O_7$

FW: 598.1

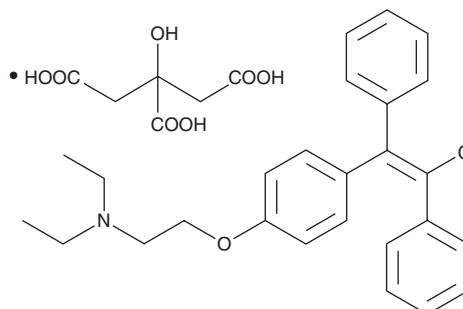
Purity:  $\geq 95\%$

UV/Vis.:  $\lambda_{max}$ : 240, 297 nm

Supplied as: A crystalline solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Enclomiphene (citrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the enclomiphene (citrate) in the solvent of choice, which should be purged with an inert gas. Enclomiphene (citrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of enclomiphene (citrate) in these solvents is approximately 30 mg/ml.

### Description

Enclomiphene is an estrogen receptor (ER) modulator.<sup>1-3</sup> It acts as an ER antagonist in humans, sheep, and rabbits and an ER agonist in rats.<sup>1-3</sup> Enclomiphene (0.34  $\mu M$ ) inhibits binding of  $17\beta$ -estradiol ( $E_2$ ; Item No. 10006315) in isolated rabbit uterus.<sup>2</sup> It decreases  $E_2$ -induced inhibition of follicle stimulating hormone (FSH) secretion in primary sheep pituitary cells in a concentration-dependent manner.<sup>3</sup> Enclomiphene (0.25 and 0.5 mg/animal) inhibits spermatogenesis and decreases serum luteinizing hormone (LH) and testosterone levels in intact or castrated rats.<sup>4</sup> Formulations containing enclomiphene have been used in the treatment of ovarian dysfunction.

### References

1. Hill, S., Arutchelvam, V., and Quinton, R. Enclomiphene, an estrogen receptor antagonist for the treatment of testosterone deficiency in men. *IDrugs* **12**(2), 109-119 (2009).
2. Wyss, R.H., Karsznia, R., Heinrichs, W.L., et al. Inhibition of uterine receptor binding of estradiol by anti-estrogens (clomiphene and CL-868). *J. Clin. Endocrinol. Metab.* **28**(12), 1824-1828 (1968).
3. Huang, S.-R. and Miller, W.L. Estrogenic and antiestrogenic effects of enclomiphene and zuclophene on gonadotropin secretion by ovine pituitary cells in culture. *Endocrinology* **112**(2), 442-448 (1983).
4. Weissenberg, R., Dar, Y., and Lunenfeld, B. The effect of clomiphene citrate and its Zu or En isomers on the reproductive system of the immature male rat. *Andrologia* **24**(3), 161-165 (1992).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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