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Chlomid

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CLOMID

Dosing

Adult First Course: Take one 50 mg tablet per day for 9 days.

Second Course: If ovulation occurs, repeat first course until conception or for three cycles.

Second Course: If ovulation does NOT occur, take 100 mg/day for 5 days as above (max. 100 mg/day).

Trade Name

This drug is known by many names such as Clomid, Milophene, Serophene, and Serofene.

Generic Name

Clomiphene Citrate

Dose to Tablets

50 mg (smallest dose) x 3 tablets = 1 tablet

30 mg

Dose to Molecules

Clinically relevant properties of Clomiphene citrate: C_{13}H_{18}ClNO_3 + 1 CaCl_2

PH 8.5

Chemical Formula

C_{13}H_{18}ClNO_3

What does it do?

This medication is used in cases of infertility in women desiring pregnancy whose partners are fertile and are potent.

Inactivation of pituitary gonadotropins, which results in the stimulation of ovulation.

Solubility

Slightly soluble in water.

Body's Processing of the Drug

This medication is taken orally, meaning ingested by mouth. It is then absorbed into the gastrointestinal tract.

The hypothalamus is a part of the brain which helps control sexual activity and reproduction. Basically what Clomiphene does is, it binds to the hypothalamic estrogen receptors, decreasing their numbers, and inhibits or stops receptor replenishment. This inhibition then triggers the pituitary release of other hormones, and the release of these hormones then lead to ovarian stimulation.

Condensed Structural Formula with Functional Groups

Functional Groups

Clomiphene is a steroidal compound. It has a hydroxyl and a nitro group.

Condensed Structural Formula

Calculation of Molar Mass

\[
\text{Molar Mass} = 26 \text{ moles of C}_2\text{H}_3\text{O}_2\text{Cl} + 1 \text{ mole of } \text{C}_6\text{H}_5\text{NO}_3 + 1 \text{ mole of CaCl}_2
\]

\[
= 26(26+1+35.5) + 1(126) + 1(136) + 1(110)
\]

\[
= 1095 + 126 + 136 + 110
\]

\[
= 1587 \text{ g/mol}
\]

Literature Value Molar Mass

598.08 g/mol

Bibliography

For references, please visit the medicinal chemistry literature.

Modified Drugs and Treatments: https://www.drugs.com/