

Name	Leuprolide
Cat #	PP-1450
Size	1 g, 10 g, 100, g and bulk custom packages
CAS#	53714-56-0
Mol. Mass	1209.4
Formula	C ₅₉ H ₈₄ N ₁₆ O ₁₂
Sequence	pGlu-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-NHEt
Purity	>95%

Leuprorelin or leuprolide acetate is a gonadotropin-releasing hormone agonist (GnRH agonist).

By causing constant stimulation of the pituitary GnRH receptors, leuprolide initially causes stimulation (flare), but thereafter decreases pituitary secretion (downregulation) of the gonadotropins luteinizing hormone (LH) and follicle-stimulating hormone (FSH).

Like other GnRH agonists, leuprolide may be used in the treatment of: hormone-responsive cancers such as prostate cancer or breast cancer, estrogen-dependent conditions (such as endometriosis or uterine fibroids), to treat precocious puberty, and to control ovarian stimulation in In Vitro Fertilization (IVF). It is considered a possible treatment for paraphilias.

A 2005 paper suggested it as a treatment for autism, the hypothetical method of action being the now defunct theory that autism is caused by mercury, with the additional assumption that mercury binds irreversibly to testosterone and therefore leuprolide can help cure autism by lowering the testosterone level and thereby the mercury level. However, used on children or adolescents it could cause disastrous and irreversible damage to sexual functioning, and there is no scientifically valid or reliable research to show its effectiveness in treating autism. Mark Geier, the proponent of the hypothesis, has frequently been barred from testifying in vaccine-autism related cases on the grounds of not being sufficiently expert in that particular issue.

Leuprolide has been tested as a treatment for reducing sexual urges in pedophiles and other cases of paraphilia.

Leuprolide is also under investigation for possible use in the treatment of mild to moderate Alzheimer's disease.

