

[Open Peer Review on Qeios](#)

Leuprolide Mesylate Injectable Suspension

National Cancer Institute

Source

National Cancer Institute. *Leuprolide Mesylate Injectable Suspension*. NCI Thesaurus. Code C118363.

A depot suspension for injection composed of the mesylate salt of leuprolide, a synthetic, long-acting nonapeptide analog of the endogenous hormone gonadotropin-releasing hormone (GnRH), with potential antineoplastic activity. Upon subcutaneous injection of the depot suspension, leuprolide binds to and activates the gonadotropin-releasing hormone receptor (GnRHR). The continuous stimulation of GnRHR by leuprolide results in both the desensitization of pituitary GnRHR and the inhibition of pituitary secretion of the gonadotropins follicle stimulating hormone (FSH) and luteinizing hormone (LH). In males, this results in a significant decline in testosterone production to castration levels and may inhibit androgen receptor-positive tumor progression.