Product Data Sheet

Product Name: Leuprorelin (Leuprolide)
Cat. No.: GC31000

Chemical Properties

Cas. No.	53714-56-0		
SMILES	{pGlu}-His-Trp-Ser-Tyr-{d-Leu}-Leu-Arg-Pro-NHEt		
Formula	$C_{59}H_{84}N_{16}O_{12}$	M.Wt	1209.4
Solubility	>20.6 mg/mL in H2O; >22 mg/mL in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Leuprorelin (Leuprolide)		

Background

Leuprorelin (Leuprolide) is a gonadotropin-releasing hormone (GnRH) analog that acts as an agonist at the pituitary GnRH receptor[1]. Leuprorelin is primarily used to treat various sex hormone-related diseases, including advanced prostate cancer, endometriosis, and precocious puberty[2]. Continuous administration of Leuprorelin can induce pituitary desensitization and/or receptor downregulation, thereby suppressing the levels of gonadotropins and sex hormones in the blood circulation, leading to hypogonadism[3, 4]. Leuprorelin is more stable than natural GnRH and has a stronger receptor affinity[5].

References:
[1] Casati L, Ciceri S, Maggi R, et al. Physiological and pharmacological overview of the gonadotropin releasing hormone[J]. Biochemical pharmacology, 2023, 212: 115553.
[2] Plosker G L, Brogden R N. Leuprorelin: a review of its pharmacology and therapeutic use in prostatic cancer, endometriosis and other sex hormone-related disorders[J]. Drugs, 1994, 48(6): 930-967.
[3] Wu H M, Chang H M, Leung P C K. Gonadotropin-releasing hormone analogs:

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Mechanisms of action and clinical applications in female reproduction[J]. Frontiers in neuroendocrinology, 2021, 60: 100876.
[4] Wuttke W, Jarry H, Feleder C, et al. The neurochemistry of the GnRH pulse generator[J]. Acta neurobiologiae experimentalis, 1996, 56(3): 707-713.
[5] Periti P, Mazzei T, Mini E. Clinical pharmacokinetics of depot leuprorelin[J]. Clinical pharmacokinetics, 2002, 41: 485-504.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA