Leuprorelin (acetate)

Item No. 22275

CAS Registry No.: 74381-53-6
Formal Name: 6-D-leucine-9-(N-ethyl-L-prolinamide)-1-9-
luteinizing hormone-releasing factor (swine),
monoaacetate
MF: C_{59}H_{84}N_{16}O_{12} • C_{2}H_{4}O_{2}
FW: 1269.5
Purity: ≥98%
UV/Vis.: λ_{max}: 222, 276 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Leuprorelin (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the leuprorelin (acetate) in the solvent of choice. Leuprorelin (acetate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of leuprorelin (acetate) in ethanol is approximately 0.25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of leuprorelin (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of leuprorelin (acetate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Leuprorelin is a synthetic gonadotropin-releasing hormone (GnRH) receptor agonist.\(^1\) It is a long-acting agent that, after an initial increase in sex hormone levels, decreases the level of circulating gonadotropins and sex hormones. Formulations containing leuprorelin have been used in the treatment of hormone-dependent prostate and breast cancers, endometriosis, and precocious puberty.\(^2\)

References