**Factrel® Injection**

( gonadorelin injection)

50 mcg gonadorelin per mL (as gonadorelin hydrochloride) Solution for Intramuscular Injection.

For use in cattle only

**CAUTION**

Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

**DESCRIPTION**

FACTREL Injection is a sterile solution containing 50 micrograms of synthetic gonadorelin (as hydrochloride) per mL in aqueous formulation containing 0.6% sodium chloride and 2% benzyl alcohol (as a preservative).

Gonadorelin is the gonadotropin releasing hormone ( GnRH) which is produced by the hypothalamus and causes the release of the gonadotropin luteinizing hormone ( LH) and follicle-stimulating hormone ( FSH) from the anterior pituitary.

FACTREL Injection has the identical amino acid sequence as endogenous gonadorelin; 5-oxo-Pro-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro-Gly-NH2 with identical physiological activities. The molecular weight of gonadorelin is 1182 with a molecular formula of C18 H26 N2 O5. The corresponding values for gonadorelin hydrochloride are 1219 (1 HCl) expressed as C18 H26 N2 O5 HCl, or 1255 (2 HCl) expressed as C18 H26 N2 O5 2 HCl.

**INDICATIONS FOR USE**

For the treatment of ovarian follicular cysts in lactating dairy cows, beef cows, and replacement dairy and beef heifers. The treatment effect of FACTREL Injection when used in lactating dairy cows, beef cows, and replacement dairy and beef heifers is a reduction in the number of days to first estrus.

For use with LUTALYSE® ( dinoprostone tromethamine injection) Injection to synchronize estrous cycles to allow fixed-time artificial insemination ( FTAI) in lactating dairy cows.

**MECHANISM OF ACTION**

Follicular cysts are enlarged non-ovulatory follicles resulting from a malfunction of the neuroendocrine mechanism controlling follicular maturation and ovulation. Exogenous administration of agents possessing luteinizing hormone ( LH) activity, such as pituitary extracts or human chorian gonadotropin, often causes ovulation or regression of follicular cysts. FACTREL Injection induces release of endogenous luteinizing hormone ( LH) to produce this same effect.

Gonadorelin, through release of LH has been demonstrated to induce ovulation of dominant ovarian follicles present on the bovine ovary during the estrous cycle. Administration of FACTREL Injection has the same effect.