

Reproduction hormones

Hormones are organic substances secreted by certain specialized cells (glands) in the body, which are diffused or transported to some other part of the body and bring about certain changes. A number of hormones are directly or indirectly involved in various aspects of reproduction. The secretion of these hormones is essential for the maintenance of a proper internal environment to ensure successful reproduction.

Gland	Hormone	Chemical Class	Principal Functions
Ovary Graafian Follicle	Estrogens (Estradiol)	Steroid	Mating behavior, Secondary sex characteristics, Maintenance of female duct system, Mammary growth
	Inhibin (Folliculostatin)	Protein	Regulates release of FSH from anterior pituitary
Corpus Luteum	Progestins (Progesterone)	Steroid	Maintenance of pregnancy, Mammary growth & secretion
	Relaxin	Polypeptide	Expansion of pelvis Dilation of cervix
Testis Leydig Cells	Androgens (Testosterone)	Steroid	Male mating behavior, Spermatocytogenesis, Maintenance of male duct system & accessory glands
Sertoli Cells	Inhibin	Protein	Regulates release of FSH
Adrenal Cortex	Glucocorticoids (Cortisol)	Steroid	Induction of parturition by fetus Milk synthesis Stress response
Placenta	Human Chorionic Gonadotropin (HCG)	Glycoprotein	LH-like - Involved with establishment of pregnancy in human. Support and maintain CL
Endometrial Cups Mare	Equine Chorionic Gonadotropin (eCG) Old name - Pregnant Mare Serum Gonadotropin (PMSG)	Glycoprotein	FSH-like- some LH activity Immunological protection of foal during pregnancy Formation of accessory CL in mare
	Estrogens/Progestins	Steroids	Regulate placental bloodflow Maintenance of pregnancy
	Relaxin	Protein	Relaxation/dilation of cervix for parturition
	Placental Lactogen	Glycoprotein	Stimulates mammary growth & milk secretion.

Uterine Endometrium Graafian Follicles Seminal Vesicles	Prostaglandin F ₂ α (PGF₂α)	Lipid	Regression of CL Stimulate myometrial contractions Ovulation Sperm transport
Pineal Gland	Melatonin	Biogenic amine	Control of seasonal reproduction in Mare & Ewe Regulate hair growth
Posterior Pituitary	Oxytocin	Octapeptide	Stimulate myometrial contractions for sperm transport, parturition & milk ejection
Anterior Pituitary	Follicle Stimulating Hormone(FSH) - Follicotropin	Glycoprotein	Stimulate follicle growth Stimulate estrogen production Spermiogenesis in male
	Luteinizing Hormone (LH) - Luteotropin	Glycoprotein	Stimulate ovulation Support CL formation, and progesterone secretion Stimulate testosterone synthesis by leydig cells of testis
	Prolactin	Protein	Stimulate milk synthesis Regulate metabolism for milk synthesis Effects Maternal Behavior
	Adrenalcorticotrop Hormone(ACTH)	Protein	Release of corticosteroids & glucocorticoids from adrenal cortex to initiate parturition
Hypothalamus	Gonadotropic Releasing Hormone(GnRH)	Decapeptide	Stimulates release of FSH and LH from anterior pituitary
	Oxytocin	Octapeptide	Produced by the hypothalamus, released at the posterior pituitary.