DATA SHEET

DEV9944 Prolactin canine ELISA

The Prolactin canine ELISA is an enzyme immunoassay for the quantitative measurement of canine prolactin.

Technology	: ELISA
Kit size	: 96
Sample material	: canine serum
Sample preparation	: -
Sample volume	: 25µl
Standard range	: 2.5-80 ng/ml
Incubation	: 2h (shaking), 1h (shaking), 30min at RT
Measuring system	: TMB 450nm
Sensitivity	: 0.4 ng/ml

Special remarks:

Canine prolactin (cPRL) is a single-chain polypeptide hormone of the canine anterior pituitary with a molecular mass of approx. 22,000. Prolactin from different species exhibits significant variations in the amino acid sequence. Canine prolactin differs from human prolactin at about 60 percent of all residues.

The secretion of cPRL from the pituitary is inhibited by hypothalamic prolactin-inhibitory factor (PIF). Although dopamine was long thought to be this PIF molecule, today it seems that there is a special peptide with prolactin-inhibiting activities. The release of prolactin is certainly stimulated by different peptides, particularly thyrotropin releasing hormone (TRH) and vasocative intestinal peptide (VIP). Estrogens and progesterone also seem to play a role in the secretion of prolactin, and neurogenic factors influence its release. Milking and suckling are immediately followed by an increase in serum cPRL.

The most important role of prolactin is stimulation of mammary gland growth and lactation. During pregnancy, prolactin levels in canine blood increase slightly; during lactation, significantly. Prolactin has a wide variety of other physiological actions. It affects water and

electrolyte balance, metabolism and gonadal function; is an important stress hormone; and seems to play a role in the maintenance of the long interestrous interval in the bitch.

In dogs with pituitary-depent hyperadrenocorticism, prolactin levels in blood were higher than in healthy animals. Prolactin determinations can be used in the therapeutic control of hyperprolactinemia. During a pseudo pregnancy, prolactin is increased. Therapy with alkaloids like bromocriptine lowers PRL levels, and lactation and maternal behaviour are decreased.

The secretory capacity of the pituitary can be tested with the TRH stimulation test.

PLEASE NOTE: According to the respective ELISA a **Prolactin canine Control (Cat.-No. DEV9944C)** is available und can be used for internal quality control.

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