Abstract

The objective of this study was to determine the LH secretion during the breeding and the anestrous season in Boer goats actively immunized against inhibin. In this experiment, 12 immunized and 12 non-immunized (control) Boer goat does were used. Permanently indwelling jugular catheters were placed permitting repeated blood collection for 6 h periods. During the breeding season, samples were taken during the luteal phase (days 10 to 16 of the cycle) on every other estrous cycle. During the non-breeding season, samplings were conducted every 6 weeks. Plasma LH concentrations were determined by means of ELISA. During the non-breeding season, immunized animals showed significantly lower LH concentrations than control animals (P < 0.01). During the breeding season, LH secretion was hardly affected by inhibin immunization with only the pulse amplitude being slightly, though significantly reduced (P < 0.01). In both immunized and non-immunized animals, the pulse rate was significantly enhanced during the non-breeding season as compared to the breeding season (P < 0.01). In conclusion, during the breeding season goats showed lower plasma LH concentrations than during the non-breeding season. During the breeding season LH secretion is only slightly affected by active immunization, whereas during the non-breeding season the LH-suppressive effect of inhibin immunization was more pronounced.

Keywords

LH, INTENSIVE SAMPLING, BREEDING SEASON, NON-BREEDING SEASON, ACTIVE IMMUNIZATION, INHIBIN