

# BITCH PREGNANCY TESTING RELAXIN HORMONE ELISA



## Outline

Relaxin is a hormone which canines begin to produce soon after the implantation of the fertilised egg, which occurs approximately 19-21 days after mating. Relaxin is detectable from 28 days post-mating until whelping but sensitivity of the ELISA has been shown to be higher from 35 days post-mating. **We recommend waiting until 33-35 days post-mating before bleeding for a Relaxin test.** Relaxin reaches its highest levels in the 6<sup>th</sup> to 8<sup>th</sup> week before declining prior to parturition. This test allows veterinarians to tell if a planned mating was successful or an unplanned pregnancy has occurred. It can also be used as an indicator for a lost pregnancy or spontaneous abortion, (a sudden decrease in relaxin), and to differentiate between real and pseudo-pregnancy.

**NOTE:** If tested 28-34 days post-mating this test may give a suspicious/equivocal or false negative result due to hormone levels being too low. If date of suspected conception is not accurately known it is best to wait until 35 days have passed from the last possible date of conception before testing, in order to obtain an accurate result.

## Test: RELAXIN ELISA

This test uses a single well sandwich immunoenzymatic technique (ELISA).

**Sample Type:** This test can only be performed on **heparin plasma (green top)**. The minimum volume required is 1 ml. **Serum (red top samples) cannot be used.**

**Turnaround Time:** 1-3 days from receipt of samples at the lab.

**Results:** The results of the Relaxin test are reported as positive, negative or equivocal results. The interpretations are as follows:

### **BITCH PREGNANCY (RELAXIN) ELISA TEST: POSITIVE**

This result indicates that the bitch is pregnant. Relaxin is detected from 35 days post-mating until whelping. Relaxin levels peak at 6 weeks gestation.

### **BITCH PREGNANCY (RELAXIN) ELISA TEST: NEGATIVE**

This result indicates the bitch is NOT pregnant, if the sample was taken 35 days post-mating. Relaxin is detectable from 28 days post-mating until whelping and levels peak around 6 weeks gestation, but sensitivity of the ELISA has been shown to be higher from 35 days post-mating. If the sample was taken between 28-34 days post-mating you may wish to re-bleed animal to verify pregnancy status.

This is a serology test to determine if a bitch is producing the pregnancy specific hormone Relaxin. The test cannot be used to accurately determine the potential size of a litter. On rare occasions, a false negative result may be obtained usually with regards to a very small litter (</= 3 pups). In this situation there are often one or more non-viable pups present.

**Any questions regarding this test, contact the Serology Dept on our NZVP Freephone Number: 0800 838 522 ext 2**