Abstract
Tuberculosis is one of the most important infectious diseases worldwide. Mycobacterium bovis is the causative agent of bovine tuberculosis (BTB), an important animal pathogen with public health implications as it is a zoonosis. Currently, the diagnosis of BTB is based on the caudal fold test of the Tuberculin Skin Test (TST). Post-mortem bacterial culture is carried out to confirm the diagnosis, and then specific biochemical tests are performed for the characterization of the etiologic agent. Culture takes at least 4 to 8 weeks to develop. The diagnosis by molecular tests such as PCR can provide fast and reliable results, significantly decreasing the time of confirmation (from two months to two days), thus allowing the possibility of taking control actions to prevent the spread of the disease in herds. In this work the use of an immunomagnetic separation capture followed by PCR (IMS-PCR) based on the IS6110 element showed a detection threshold corresponding to 10 CFU in M. bovis-spiked PBS. In the case of infected bovine fresh tissues, after five replicates, the minimum value of detection was 1000 CFU in 100% of the trials (5/5). This paper attempts to provide a sensitive, rapid and specific technique for the diagnosis of bovine tuberculosis, and opens up the possibility of a direct application in the control and eradication of this cattle disease.

Keywords
Mycobacterium bovis, Immunomagnetic capture, PCR, Cattle