IMPROVED COMPOSITION FOR THE DIAGNOSIS OFMYCOBACTERIUM BOVIS IN MAMMALS	
Offering Organization:	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
Type of Organization:	Public Research Center
Development Stage:	Commercial Concept Tests
Desired Relationship:	– Technological research and development financing (technological partner) – Specialized application tests – Creation of a new company (Joint Venture) for the commercialization of the products outlined herein – Licensing of patents
Sector:	Biomedical Biotechnology
Area of knowledge:	Medicine
Key words:	*Mycobacterium bovi, tuberculosis bovina*

DETAILED DESCRIPTION:

Problem to be solved:

Bovine tuberculosis, caused by *Mycobacterium bovis,* is one of the most important chronic contagious and infectious zoonsis in livestock, both because of its impact on public health and its economic consequences. The number of incidents limits the development of livestock and associated products, due to the approximate decrease of 20 % of milk and meat production and 5% in the reproductive capacity of the herd, which causes a restriction on the sale and export of meat from sick animals. Although there are a wide variety of ways to diagnose *Mycobacterium* infections, such technologies are focused on the diagnosis of human tuberculosis, none of which establish the specific mixture or amounts that could be used for optimizing the diagnosis of *M. bovis*.

Solution:

The present invention describes and claims an improved composition to be used in the detection of *Mycobacterium bovis* in mammals. Said composition is comprised of both HspX and PfkB recombinant proteins along with bovine PPD.

New and Innovative Aspects:

This invention synthesizes the HspX and PfkB recombinants from *M. bovis* as specific proteins through a DNA technology to be used as additional synergistic components in a PPD-B mix for the detection of true cases of *M.bovi* infections.

TECHNICAL CHARACTERISTICS:

This invention proposes the specific mixture of the complete recombinant proteins HspX and PfkB from *M.bovis* joined with histidines in a synergistic mixture along with the stimulation of the nonspecific antigen PPD-B, producing it with mixtures of blood and/or fluids, those of which generate a cell-mediated immunity response and produce an increase in the detection-sensitivity of the test due to the production of much higher levels of IFN-gamma than with the use of PPD-B y PPD-A alone.

Main advantages derived from its utilization:

– Increases the sensitivity of the specific detection of *M. bovis* to 99% compared to the test (Bovigam®)
Applications: – In the field of animal diagnostics for the detection of *Mycobacterium bovis*.

INTELLECTUAL PROPERTY
– Patent filed in 2012 – MX/a/2012/007516

ABOUT THE OFFERING ORGANIZATION	
Presentation:	El Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C. (CIATEJ) is a public research center that belongs to the national technology development and innovation network, the National Council for Science and Technology (CONACyT). CIATEJ is focused on the agricultural, food, health, and environmental sectors with an emphasis on the application of innovative biotechnology.
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