

Diagnosis of Primate Tuberculosis. **PRIMAGAM[®]**

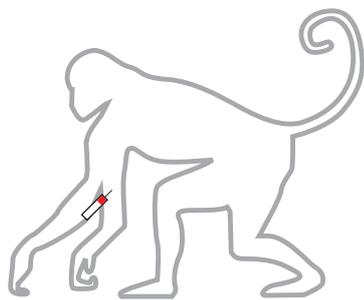


DIAGNOSTIC KIT FOR TUBERCULOSIS IN MACAQUES AND OTHER NON-HUMAN PRIMATES.

- _ Fast diagnosis
- _ Testing is less stressful for the animal
- _ Objective and highly reproducible
- _ Established technology
- _ Convenient for the handler

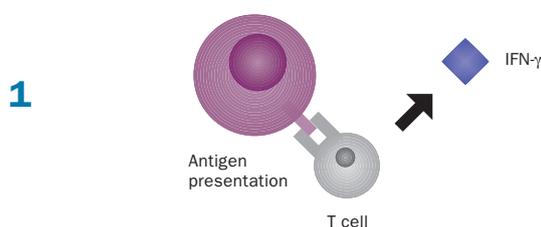
Test for tuberculosis in Macaques and other non-human primates.

PRIMAGAM®



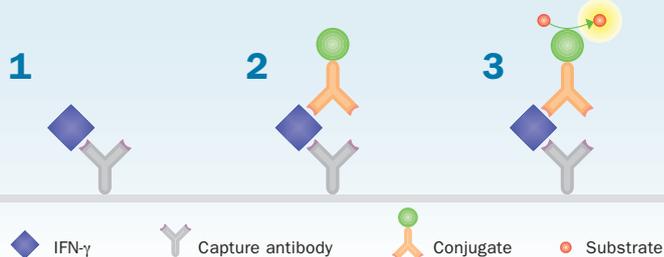
Heparinized blood sample

In vitro whole blood culture



Plasma

Gamma Interferon EIA



PRIMAGAM®

Prod. No. 63311/63301 (US)

TUBERCULOSIS

The traditional test for tuberculosis in non-human primates is the intradermal skin test using Purified Protein Derivative (PPD) Tuberculin. Skin test results can be difficult to interpret and their application and reading can be stressful both for the animal and the handler.

Prionics Primagam® test is a rapid in vitro blood based assay of cell mediated immunity (CMI) through the measurement of interferon- γ .

The animal is bled and the test is performed within a laboratory.

Primagam® registered by the USDA for use in macaques. The test has also been used in gorilla, orangutan, chimpanzee, gibbon, guerezas, mandrill, squirrel monkey, marmoset and baboon.

Primagam® is an important tool for the surveillance of tuberculosis within non-human primates. It can be used as an alternative to skin testing.

Primagam® also has wide application in the study of T cell immunity (TH1) in primates to serve as a rapid sensitive and convenient alternative to the lymphocyte proliferation assay.

TEST PROCEDURE

STAGE 1 – WHOLE BLOOD CULTURE

The blood samples require overnight incubation with antigen (tuberculin purified protein derivatives, PPDs) to stimulate the lymphocytes to produce IFN- γ . Lymphocytes from uninfected animals do not produce IFN- γ to tuberculin PPD antigens and hence IFN- γ detection correlates with infection.

Step 1

Blood collected in heparin is mixed with specific antigens. After incubation at 37 °C overnight, the plasma supernatant from each blood aliquot is harvested for IFN- γ estimation.

STAGE 2 – PRIMATE IFN- γ ENZYME IMMUNOASSAY (EIA)

IFN- γ in the plasma supernatants of the each blood aliquot is estimated using a sandwich EIA.

Step 1

Diluted plasma samples react with antibodies to IFN- γ bound to a solid support. Unbound material is removed by washing after a suitable incubation time.

Step 2

Conjugate reacts with IFN- γ bound to the antibody coated to a solid support. Unreacted conjugate is removed by washing after a suitable incubation time.

Step 3

Enzyme substrate is added. The rate of conversion of substrate is proportional to the amount of bound IFN- γ . The reaction is terminated after a suitable time and the amount of colour development estimated spectrophotometrically.

CONTACT INFORMATION

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