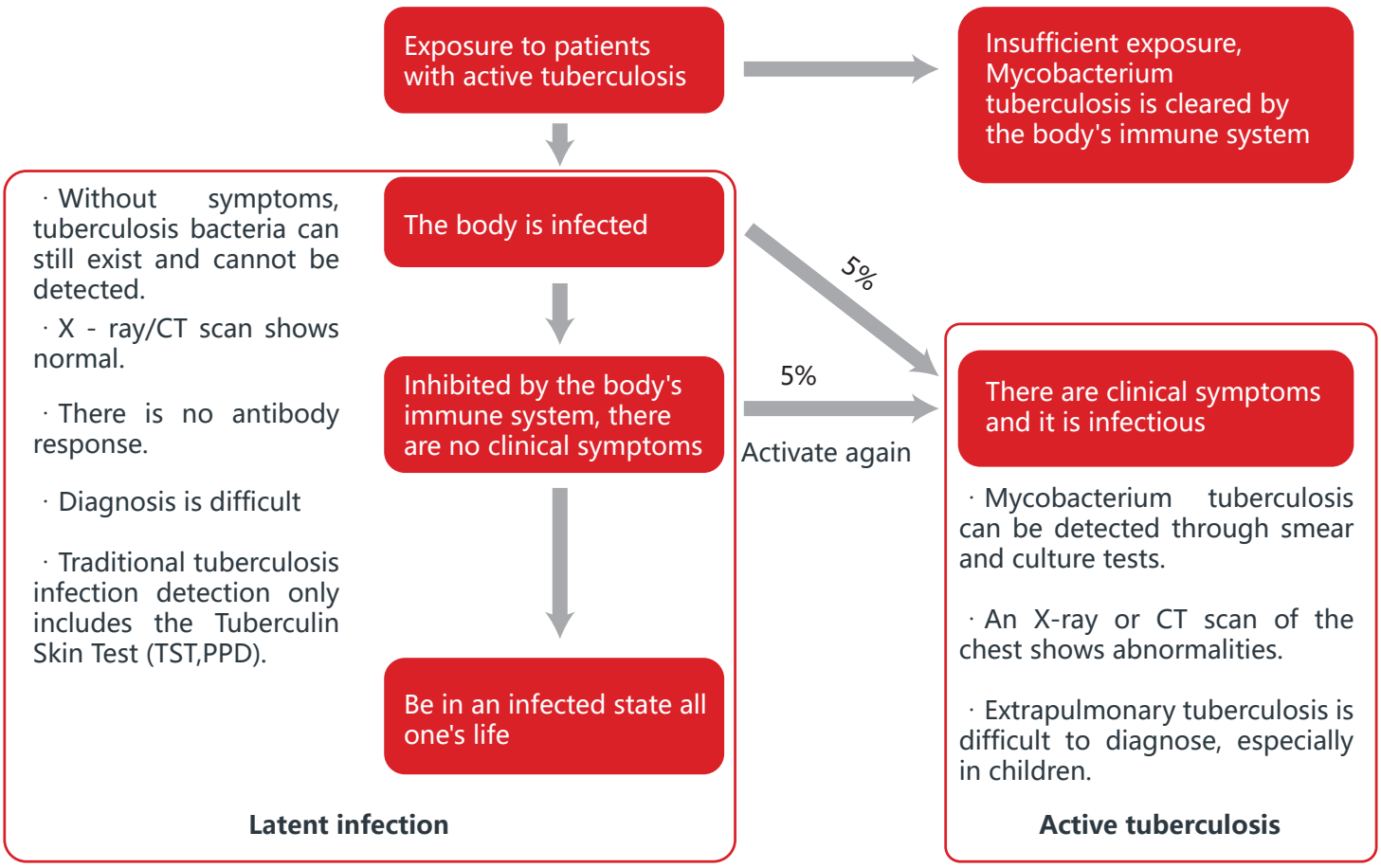
Hotgen

TUBERCULOSIS

INFECTION T-CELL DETECTION SYSTEM

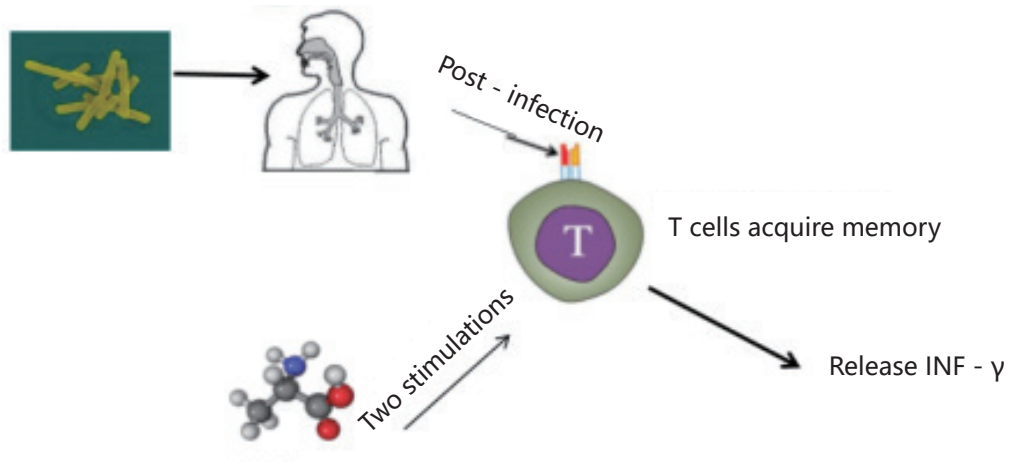
Simple operation, economical and convenient

Tuberculosis infection



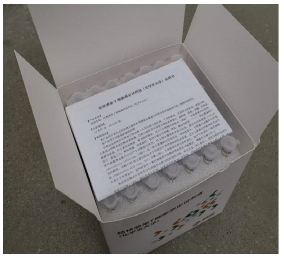
Detection principle

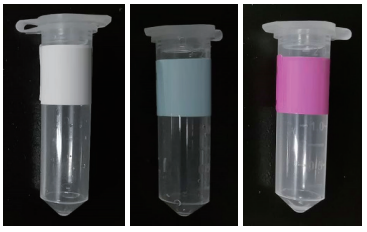
After the human body is infected with Mycobacterium tuberculosis, sensitized T lymphocytes are produced and exist in the peripheral blood. When they are exposed to tuberculosis antigens (such as ESAT6, CFP10) again, they can be activated into effector T lymphocytes and release high - level cytokines. Among them, the most important one is interferon - γ (Interferonγ, IFN - γ). By detecting the concentration of interferon - γ, the tuberculosis infection situation can be judged. That is, the interferon - γ release assay, IGRAs.



Composition of tuberculosis infection T cell detection system

(1)Protein extraction reagent
Stimulation and culture section



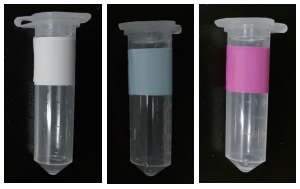


N T P

(2)Chemical Luminescence Platform Detection (MQ60, C800)

· Mono test CLIA(MQ60 series)
· Automatic CLIA (C800)
Detect the content of IFN - γ by chemiluminescence.

or



N T P

Stimulation and culture section
(protein extraction reagent)

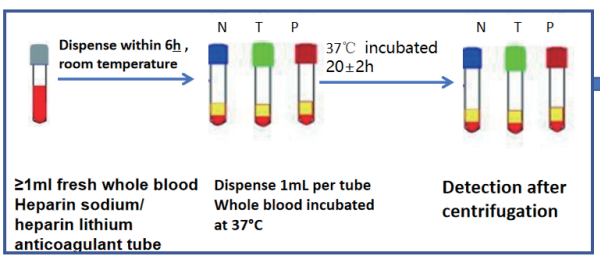
Detection reagent
Quantitative detection * 3

N Tube: Blank Control Tube
Significance:
1)Eliminate the influence of Y interferon produced by the background.

T-tube: Test extraction tube, containing Mycobacterium tuberculosis-specific recombinant antigen (ESAT6).
Significance:
1) Specific antigens stimulate the sample to produce IFN-γ.

P - tube: Positive control tube, containing phytohemagglutinin (PHA) to induce lymphocytes to produce interferon.
Significance:
1)Evaluate whether the impact is caused by the low immunity of the sample itself (few lymphocytes).
2)Evaluate the impact caused by sample placement, incubation or operational techniques.

The process of γ-interferon in vitro release test



N :Blank control tube
T: Test extraction tube
P: Positive control tube

Mono test CLIA (18 T/h)

Result report out in 17 minutes
Packaging: 60 servings/box
Calibration: two points

By comparing the IFN-γ release levels in the antigen-stimulated tube and the blank control tube, we can indirectly determine whether the subject has been infected with Mycobacterium tuberculosis.

Interpretation of γ-Interferon Release Assay Results

The indications of IGRA mainly include the diagnosis of latent tuberculosis infection and the auxiliary diagnosis of active tuberculosis.
Interpretation of IGRA test results:
(1)A positive result supports the determination of the Mycobacterium tuberculosis infection status.
(2)A negative result does not support the determination of the infection status.
(3)An indeterminate result is one of the application limitations of this test.

Product Information of Hotgen Biotech

(1) Detection equipment

Analyzer Type	Fully automated Bench-top CLIA analyzer (MQ60 smart)
Sample type	Human serum, plasma, whole blood, urine, cerebrospinal fluid
Host size	300mm x 565mm x 610mm (length×width×height)
Host weight	36.0kg
Languages	English
Mode	Batch mode
Channel	6 channels
Throughput	24 tests/hour
Storage	Result storage >1 million
Standby	24 hours operation standby
Data management	LIS/HIS connection

Detection Principle	AMPPD-Magnetic Particle Chemiluminescence
Throughput	150T/H
Sample Positions	30
Reagent Positions	12
First Report Time	17 min
Sample Types	Whole blood, Serum, plasma, urine
Sample Loading Needle	Steel needle
Sample Remove Needle	Steel needle
Dimensions (L x W x H)	520 x 760 x 650 mm

C800

(2)Detection reagent

Panel	Parameter	Qualification	Sample Type
IGRA	Protein extraction reagent	CE IVDR	WB
	Interferon-γ Chemiluminescence Immunoassay Kit (CLIA)	NMPA, CE	S/P

Simple operation
Economical and convenient
Be widely applied

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