

Advantages

- The world's first reliable BTB Ab ELISA for serological diagnosis
- Useful mass screening method for Bovine tuberculosis before Intradermal skin test →
- Unique recombinant specific antigens provide high sensitivity and specificity
- Fast test result without sample dilution and secondary washing

Save time and labor cost

Performance data

[Sensitivity]

	BTB Ab ELISA			
	Positive	Negative	Total	Sensitivity
Positive serum confirmed by isolation	18	2	20	90.0%(18/20)
Positive serum confirmed by Intradermal skin test	113	17	130	86.9%(113/130)
Total	131	19	150	87.3%(131/150)

[Specificity]

	BTB Ab ELISA			
	Positive	Negative	Total	Specificity
Negative serum confirmed by epidemiological study	12	754	766	98.4%(754/766)
Negative serum confirmed by Intradermal skin test	80	8,220	8,300	99.0%(8,220/8,300)
Total	92	8,974	9,066	98.9%(8,974/9,066)

Q & A

1. When can the M. Bovis be detected by Intradermal skin test after M. Bovis infection ?

Generally, the bovine tuberculosis can be detected by the Intradermal skin test from 3~6 weeks after infection.
The Intradermal skin test can detect M. Bovis at the early, middle, and late stage of a disease but not during the last stage.

2. When can the Anigen BTB Ab ELISA detect the anti- M. bovis antibody after M. Bovis infection?

Generally, the bovine tuberculosis can be detected by the Anigen BTB Ab ELISA from 4~8.5 weeks after infection.
The Anigen BTB Ab ELISA can detect at the middle, late stage, and the last stage of a disease but not during the early stage.

3. What are the reasons for possible discrepancies between Anigen BTB Ab ELISA result and Intradermal skin test result?

- 1) In the case of a positive Intradermal skin test, and a negative ELISA results.
 - If the cattle is truly infected, the early stage of M. bovis infection is stronger in cellular immunity, while it is weak in humoral immunity. Therefore, it is possible that Intradermal skin test that detects cellular immunity is positive and ELISA which detects humoral immunity is negative.
 - If the cattle is not infected, the false positive result is due to a non-specific response of the Intradermal skin test.
- 2) In the case of a negative Intradermal skin test, and a positive ELISA results.
 - If the cattle is truly infected, the last stage of M. bovis infection is stronger in humeral immunity, while it is weak in cellular immunity. Therefore, it is possible that Intradermal skin test that detect cellular immunity is negative and ELISA that detects humeral immunity is positive.
 - If the cattle is not infected, the false positive result is due to a non-specific response of ELISA.

How can the Anigen BTB Ab ELISA be used effectively?

The individual Intradermal skin test is the standard screening method of diagnosis in the presence of live cattle. However, Intradermal skin test is more time and labor intensive compared to ELISA test. Therefore, it is recommended to use Anigen BTB Ab ELISA as a mass screening diagnostic method. ELISA positive cases are recommended to be tested again by Intradermal skin test.

