

DNA extraction from Meat

Preparation of test samples

Cut 5~10mg the test sample and put it in the micro test tube (usually use 0.2ml or 0.5ml tubes for PCR)



Reagents

Mix the CellEase A, B and distilled water (20 µl CellEase A, 20 µl CellEase B, 60 µl distilled water)



Add 100 µl of the mixture to the samples.



Incubate at 72°C for 6 minutes
Then incubate at 94°C for 3 minutes



Transfer 5-7µl of extracts to PCR reaction mixture and amplify the target DNA fragment



Pork (about 5mg) in 0.2 ml micro test tube

PCR

5~7µl	Test sample
5.0 µl	×10 buffer (+Mg ₂₊)
5.0 µl	dNTPs
1.0 µl	Forward Primer (10pmol/µl)
1.0 µl	Reverse Primer (10pmol/µl)
0.5 µl	Ex Taq (5 U/µl)

Fill up to 50µl by distilled water

PCR Cycle

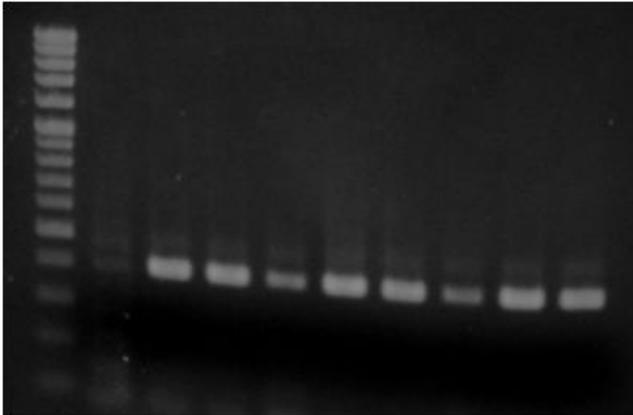
94°C	1min
94°C	30sec
55°C	30sec
72°C	60sec
72°C	4min

35 Cycles

<Results>

① DNA extraction and detection from pork samples

M 1 2 3 4 5 6 7 8 9



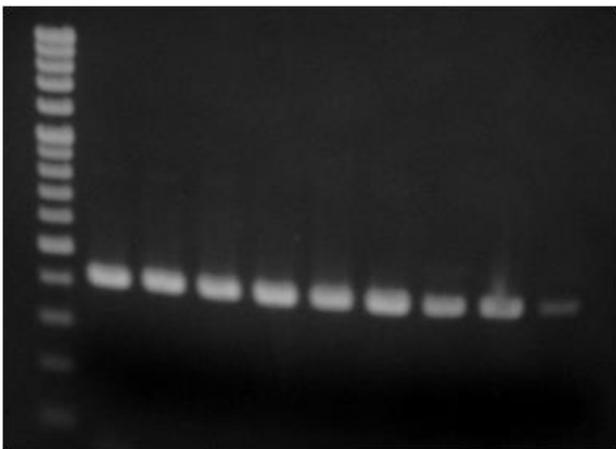
M Marker (100bp ladder)

- 1 Sample 4mg, Add 5 μ l of DNA extract to PCR
- 2 Add 6 μ l of DNA extract to PCR
- 3 Add 7 μ l of DNA extract to PCR
- 4 Sample 8mg, Add 5 μ l of DNA extract to PCR
- 5 Add 6 μ l of DNA extract to PCR
- 6 Add 7 μ l of DNA extract to PCR
- 7 Sample 12mg, Add 5 μ l of DNA extract to PCR
- 8 Add 6 μ l of DNA extract to PCR
- 9 Add 7 μ l of DNA extract to PCR

As a results, 6~7 μ l of DNA extract was thought to be best for PCR.

② DNA extraction and detection from fish (Tuna) samples

M 1 2 3 4 5 6 7 8 9



M Marker (100bp ladder)

- 1 Sample 6mg, Add 5 μ l of DNA extract to PCR
- 2 Add 6 μ l of DNA extract to PCR
- 3 Add 7 μ l of DNA extract to PCR
- 4 Sample 9mg, Add 5 μ l of DNA extract to PCR
- 5 Add 6 μ l of DNA extract to PCR
- 6 Add 7 μ l of DNA extract to PCR
- 7 Sample 18mg, Add 5 μ l of DNA extract to PCR
- 8 Add 6 μ l of DNA extract to PCR
- 9 Add 7 μ l of DNA extract to PCR

As a results, less than 10mg of test sample was thought to be best for PCR.