



Immunochromatography-based pork detection kit (IPDK)

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Brief description about the technology

The technology is developed to extract target analytes using field-deployable extraction buffer without any stationary laboratory set-up by simple trituration followed by filtration within 10 min. This kit is a qualitative sandwich immunochromatographic test in a strip format to determine pork content in raw meat, processed meat, and meat mixes.

Sample extract is directly added to the sample pad and flows through the strip by capillary action. If the sample contains pork or target analyte, two colored lines develop at the test line and control line area, whereas in absence of pork, only the control line will appear. The total duration of the assay is only 15 min.

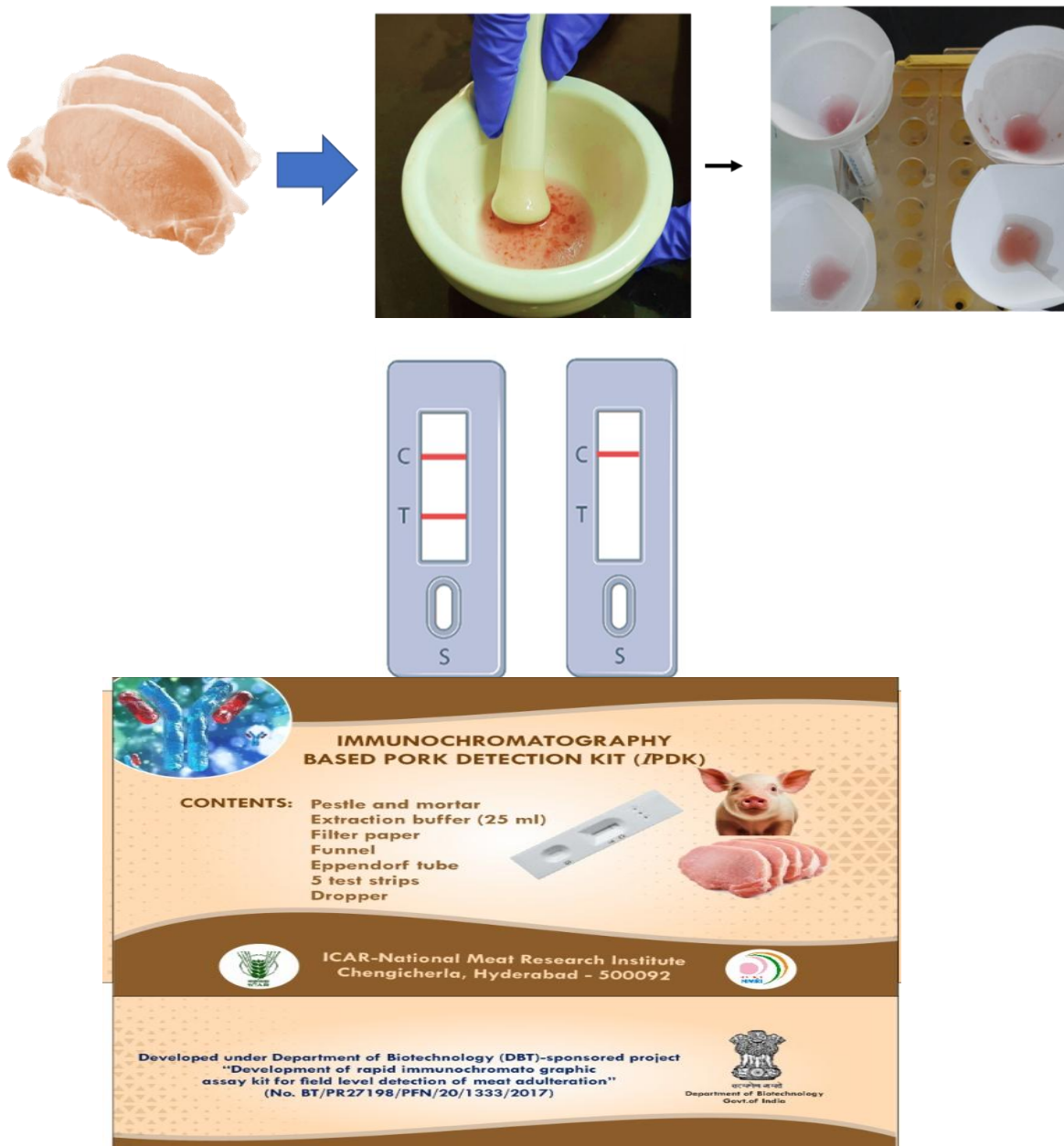
Traditional analytical methods for identifying meat fraud require specially equipped stationary laboratories, high-tech equipment, and qualified personnel. Current methodology is simple, rapid, low-cost, highly specific, and sensitive, which can be complemented with stationary arbitration methods in resource-limited settings.

- The total duration of the assay (from sample extraction to visual detection) can be completed within 15 min.
- No skilled manpower or specialized laboratory setup is required.
- The kit can detect as low as 0.5% level of pork adulteration (0.5% w/w) in raw and cooked (100 °C) meat and meat mixes.
- Sensitivity: 10 ng/ml
- Detection limit: 0.063%
- Each test costs less than 100 Rs.

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(ISO 9001:2015 और FSSC 22000 प्रमाणित, ISO/IEC 17025:2017 NABL मान्यता प्राप्त, FSSAI रेफरल प्रयोगशाला)



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