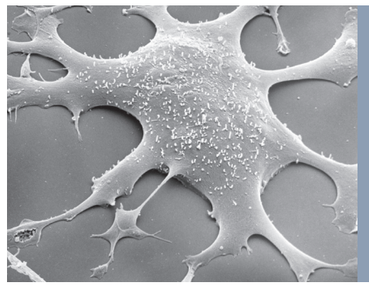

Mycoplasma Detection Methods

Method	Sensitivity	Specificity	Advantages	Disadvantages
Microbiological culture	High ⇧	High⇧	European Pharmacopeia recommended method. Gives a clear result.	Requires specialist microbiology lab. Relatively slow detection method. Potential source of cross-contamination. Some strains are not culturable.
Direct DNA stain	Low ⇩	Low ⇩ (non-specific DNA stains)	European Pharmacopeia recommended method. Rapid and cheap.	Reading and interpretation of result can be difficult and subjective.
Indirect DNA stain (using indicator cells)	High ⇧	Low ⇩ (non-specific DNA stains)	Amplifies contaminant so it is easier to interpret than direct stain.	Slower and more time consuming than direct stain
PCR	High ⇧	Medium ⇔ (will not detect all Mycoplasma species)	Rapid and very sensitive. Several commercial kits available.	Risk of false positive results due to carry over contamination from positive controls and/or samples.
ELISA	Medium ⇔ (high if amplified ELISA)	Medium ⇔ (will not detect all Mycoplasma species)	Rapid and cheap. Useful and simple for testing large numbers of samples.	Amplified ELISAs include additional steps and are slower. Requires access to ELISA reader.
Biochemical detection	Medium ⇔	High ⇧	Very rapid. Useful for urgent testing of small sample numbers.	Requires access to luminometer.

Source: Adapted from Geraghty et al., 2014 Br J Cancer doi: 10.1038/bjc.2014.166