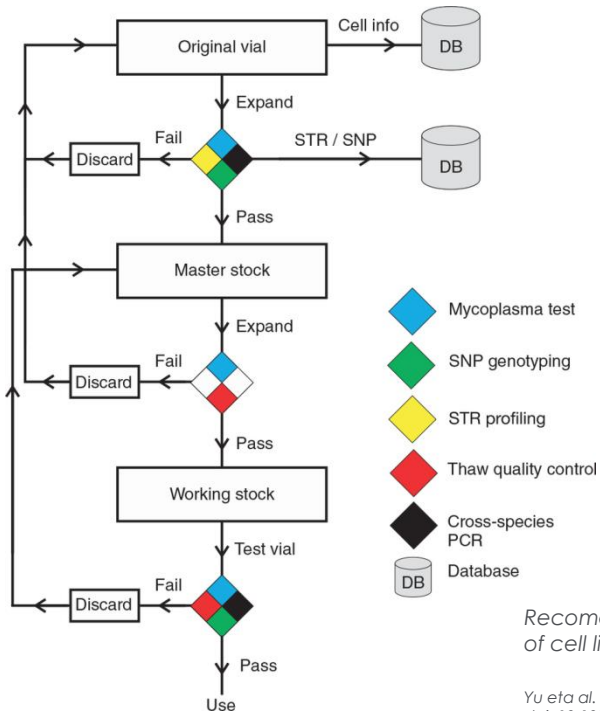


When to test

- 1) Authenticate cell lines at the beginning and the end of a study.
- 2) Authenticate frozen materials stored for future use.
- 3) If a cell line is in continuous use, consider quarterly to semi-annual testing to ensure you are still working with the correct material.
- 4) Consider more frequent testing for experiments in which cell line growth is reduced (for example, cell cultures treated with therapeutic agents, cells grown in media in which factors critical for growth are removed, etc.).



Recommendations for maintenance of cell line stocks

Yu et al. Nature 2015 Apr 16;520(7547): 307-11.
doi: 10.1038/nature14397.

Human Cell-line Authentication Service

- 8 loci are enough to authenticate a cell line for research and publication purposes.
- The ATCC STR database includes profile standards for all distributed cell lines.
- Comparing an STR profile using the ATCC database will provide a measurable relationship between the tested cells and accepted standard cell lines.
- Tumor and transformed cell lines are more prone to genetic drift, which can accelerate with passage number, media content, and other factors.
- STR profiles assume two alleles; the presence of more than two alleles in DNA from normal cells indicates genomic heterogeneity, which is typically equated with contamination or genetic instability. Some cell lines may have more than 2 alleles at a loci as they are generally not normal cells.

Service requirements

- > 0,5M cells
- e-mail order form to plataforma.genomica@biodonostia.org