



THE ESSENTIALS OF LIFE SCIENCE RESEARCH  
GLOBALLY DELIVERED™

# TRUST YOUR CELLS. TRUST YOUR DATA.

The problem of cell line misidentification has persisted for almost 50 years, highlighting concerns of data integrity and reproducibility among life science researchers.

**LOOK TO  
YOUR TRUSTED SOURCE  
FOR HUMAN CELL LINE  
AUTHENTICATION**

## ASN-0002 Authentication of Human Cell Lines: Standardization of STR Profiling

The ATCC Standards Development Organization (SDO) has published a new consensus standard under the direction of an international working group made up of subject matter experts possessing relevant experience in DNA profiling technologies as well as stakeholders from major cell repositories, industry, academia and government agencies. **ASN-0002: Authentication of Human Cell Lines: Standardization of STR Profiling**, an approved American National Standard, provides a standardized procedure for unambiguous authentication and identification of human cell lines using STR profiling.

**The ASN-0002 Standard provides investigators with:**

- A historical perspective of cell line cross-contamination and misidentification
- Guidance on the use of STR profiling for authenticating human cell lines
- A detailed protocol on the preparation of DNA samples
- Methods for maintaining quality control of data
- Direction on the interpretation of STR profiling results

**ASN-0002: Authentication of Human Cell Lines: Standardization of STR Profiling** is now available for purchase on the ANSI eStandards Store at <http://webstore.ansi.org>.

The ASN-0002 Standard will empower scientists to authenticate cell lines included in their research and interpret their data with confidence.

**Coming Soon!** Coupled to the ASN-0002 Standard is the establishment and maintenance of a public STR profile database hosted by the National Center for Biotechnology Information (NCBI).



## ATCC® Standards Development Organization

In 2007 the ATCC® Standards Development Organization (SDO) became the first biological resource organization to become an American National Standards Institute (ANSI) accredited SDO. The ATCC® Standards Development Organization (SDO) is a developer and publisher of stakeholder-proposed, industry-relevant, national consensus standards for biomaterials and related processes. Learn more at [www.atccsdo.org](http://www.atccsdo.org).



## STR Profile Database

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ATCC has decades of experience with STR profiling and unmatched expertise in data interpretation. Use of the STR Profile Database provides researchers in industry and academia with the information they need to conduct their research and publish with confidence.

As part of the ongoing effort to characterize and authenticate human cell lines in the ATCC collection, we maintain a comprehensive database of STR DNA profiles. Recent enhancements include:

- Updated algorithms based on the published standard, **ASN-0002: Authentication of Human Cell Lines: Standardization of STR Profiling**
- Multiple search options
- Search results that can be sorted by percent match, ATCC catalog number, designation or STR loci
- Excel<sup>®</sup>-exportable search results

STR loci are among the most informative polymorphic markers in the genome. Profiles in the ATCC database were generated by simultaneously amplifying eight STR loci, plus the amelogenin gene for gender determination, in a multiplex PCR reaction enabling a 1 in 10<sup>8</sup> discrimination rate for unrelated individuals.

Access the updated ATCC STR Profile Database at [www.atcc.org](http://www.atcc.org). Log on and click on 'STR Profile Database' in the 'Cultures and Products / Cell Biology' dropdown menu.

### PHONE

800.638.6597  
703.365.2700

### EMAIL

[sales@atcc.org](mailto:sales@atcc.org)  
[tech@atcc.org](mailto:tech@atcc.org)

### WEB

[www.atcc.org](http://www.atcc.org)



10801 University Boulevard  
Manassas, VA 20110

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