



# 3 Strain Tagged Whole Cell Even Mix

MSA-2014™

## Description

This NGS Standard is a mock microbial community that can be used as a spike-in control for 16S rRNA and shotgun metagenomic sequencing assays. This product comprises three fully characterized and authenticated ATCC® Genuine Cultures that contain unique synthetic 16S tags incorporated into the bacterial genome. Each tag consists of four artificial variable regions (corresponding to V1 through V4 of 16S rRNA gene) flanked by conserved regions for PCR amplification.

### Components:

33.3% *Escherichia coli* with Tag 1

33.3% *Clostridium perfringens* with Tag 2

33.3% *Staphylococcus aureus* with Tag 3

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## Storage Conditions

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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## Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

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## BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as

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guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

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### Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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### Handling Procedures

1. Customers should rehydrate the lyophilized pellet with the appropriate volume of cold PBS to achieve the desired concentration of cells/ $\mu\text{L}$ .
2. Allow the pellet to dissolve at least for two minutes; keep the vial on ice to prevent cell lysis.
3. After reconstitution, mix the product gently and aliquot as needed.
4. Centrifuge for 10 min at  $10,000 \times g$  at  $4^{\circ}\text{C}$ .
5. Carefully discard the supernatant without disrupting the pellet.

6. Use the pellet for DNA extraction immediately or freeze the pellet for use at a later time.
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### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: 3 Strain Tagged Whole Cell Even Mix (ATCC MSA-2014)

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### References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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### Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

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### Disclaimers

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### Revision

## 3 Strain Tagged Whole Cell Even Mix

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This information on this document was last updated on 2024-06-15

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