Quantitative Synthetic *Pneumocystis jirovecii* DNA

MYA-5006SD™

Description

Quantitative Synthetic *Pneumocystis jirovecii* DNA can be used for assay development, verification, and validation as well as monitoring of day-to-day test variation and lot-to-lot performance of molecular-based assays. The quantitative format allows for the generation of a standard curve for quantitative PCR (qPCR) to determine fungal load. This preparation includes fragments from the mtLSU rRNA, mtSSU rRNA, DHPS, MSG, KEX-1, and Beta-tubulin regions.

Organism: *Pneumocystis jirovecii* Frenkel
Genetic target: Preparation includes fragments from the mtLSU rRNA, mtSSU rRNA, DHPS, MSG, KEX-1, and Beta-tubulin regions
Specification range: ≥ 1 x 10^5 to 1 x 10^6 copies/µL
Volume: 100 µL
Shipping information: Shipped in a proprietary stabilization matrix

Storage Conditions

Product format: Frozen
Storage conditions: -20°C or colder

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.

The synthetically engineered sequence of the product constitutes intellectual

property belonging to ATCC. Unauthorized use, including sequencing, modification, or reverse-engineering, of the product is expressly prohibited without prior ATCC consent.

BSL 1

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

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Handling Procedures

1. Thaw the vial on ice. Avoid exposing the synthetic DNA to repeated freeze-thaw cycles as it may result in degradation of the DNA and variation in copy number.
2. Gently mix the sample to ensure an even distribution of material.
3. Briefly centrifuge the tube before opening to ensure all liquid is at the bottom.

Notes

Aliquoting is highly recommended to avoid multiple freeze-thaws, which can damage

the synthetic DNA.

This construct is synthetically derived and therefore does not contain any viable material and cannot replicate.

The following primers and probe can be used with this nucleic acid preparation.
Forward primer (5' to 3'): TCATGACCCTTA TGAAGTGGGC
Reverse primer (5' to 3'): GCTCCGACTTCCATCATTGC
Probe (5' to 3'): /56-FAM/ ACGTGCTGCAAAATTTTCTACAATGGG /3BHQ_1/

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Quantitative Synthetic *Pneumocystis jirovecii* DNA (ATCC MYA-5006SD)

References

References and other information relating to this material are available at www.atcc.org.

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