

***Mycobacterium avium*, Strain DJO-44271**

Catalog No. NR-49092

Product Description:

Mycobacterium avium (*M. avium*), strain DJO-44271 was isolated between 2009 and 2014 from a human in Texas. NR-49092 was produced by inoculation of BEI Resources seed lot 63066973 into Middlebrook 7H9 broth with ADC enrichment. Broth inoculum was added to Middlebrook 7H10 agar with OADC enrichment kolles, which were grown for 34 days at 37°C in an aerobic atmosphere with 5% CO₂ to produce this lot.

Lot: 70028896

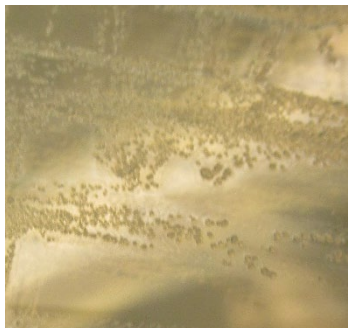
Manufacturing Date: 22OCT2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis¹ Cellular morphology 21 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Middlebrook 7H10 agar with OADC enrichment Colony morphology Motility (wet mount) Growth rate Acid-fast stain Biochemical tests VITEK® MS (MALDI-TOF)	Gram-positive rods Report results Report results ≥ 7 days Positive (red colonies) <i>M. avium</i> (≥ 90%)	Gram-positive rods Circular, convex, entire, smooth and cream (Figure 1) Non-motile 21 days Positive (red colonies) <i>M. avium</i> (99.9%)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1420 base pairs) Sequencing of Heat Shock Protein 65 gene (~ 440 base pairs)	≥ 99% sequence identity to <i>M. avium</i> type strain (GenBank: CP046507.1) ≥ 99% sequence identity to <i>M. avium</i> type strain (GenBank: CP046507.1)	100% sequence identity to <i>M. avium</i> type strain (GenBank: CP046507.1) ² 100% sequence identity to <i>M. avium</i> type strain (GenBank: CP046507.1) ²
Purity (post-freeze) Middlebrook 7H10 agar with OADC enrichment 35 days at 37°C in an aerobic atmosphere with 5% CO ₂ Tryptic Soy agar 35 days at 37°C in an aerobic atmosphere with 5% CO ₂	Growth consistent with expected colony morphology Report results	Growth consistent with expected colony morphology Growth consistent with expected colony morphology
Viability 21 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Middlebrook 7H10 agar with OADC enrichment	Growth	Growth

¹Information on *Mycobacterium* testing is available from Ribón, W. "Biochemical Isolation and Identification of Mycobacteria." Biochemical Testing. (2012) Jose C. Jimenez-Lopez (Ed.), InTech, Available from: <http://www.intechopen.com/books/biochemical-testing/biochemical-isolation-and-identification-of-mycobacteria>, Lévy-Frébault, V. V. and F. Portaels. "Proposed Minimal Standards for the Genus *Mycobacterium* and for Description of New Slowly Growing *Mycobacterium* Species." Int. J. Syst. Bacteriol. 42 (1992): 315-323. PubMed: 1581193, and Magee, J. G. and A. C. Ward. "Family III. *Mycobacteriaceae* Chester 1897, 63^{AL}." Bergey's® Manual of Systematic Bacteriology, Volume 5. (2012) Goodfellow, M., et al. (Ed.), Springer.

²Phenotypic tests performed on BEI Resources seed lot 63066973 rule out other slow-growing *Mycobacterium* species (Magee, J. G. and A. C. Ward. "Family III. *Mycobacteriaceae* Chester 1897, 63^{AL}." Bergey's® Manual of Systematic Bacteriology, Volume 5. (2012) Goodfellow, M., et al. (Ed.), Springer.)

Figure 1: Colony Morphology



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15 JUN 2020

Program Manager or designee, ATCC Federal Solutions

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