

Certificate of Analysis for NR-116

Yellow Fever Virus, 17D

Catalog No. NR-116

Product Description:

Yellow fever virus (YFV), 17D was derived from the virulent Asibi strain of yellow fever virus (YFV) by *in vitro* passage in chicken embryo tissue. The Asibi strain was isolated in 1927 from the blood of a West African patient. NR-116 lot 70050752 was produced by infecting African green monkey kidney cells (Vero; ATCC CCL-81™) with BEI Resources seed lot 7496111 and incubating in EMEM (ATCC 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020) for 6 days at 37°C with 5% CO₂.

Passage History:

Parent Strain (Asibi): MK53/MEmb(mince)(18)/CE(whole embryo mince)(50); Subline Strain (17D) (Prior to deposit at BEI Resources): CE(less CNS)(152)/CE(3)/CE(less CNS)(1)/CE(8)/V(2); Subline Strain (17D) (BEI Resources): V(3); MK = Monkey Kidney; MEmb = Mouse embryo; CE = Chicken embryo; CE(less CNS) = Chicken embryo (central nervous system removed); CE = Embryonated chicken eggs; V = Vero cells

Lot: 70050752 Manufacturing Date: 01MAR2022

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in Vero Cells	Cell rounding and detachment	Cell rounding and sloughing
Sequencing of Species-Specific Region (~ 890 nucleotides)	≥ 98% identity with YFV, 17D (GenBank: X03700.1)	99.8% identity with YFV, 17D (GenBank: X03700.1)
Titer by TCID₅₀ Assay in Vero Cells by Cytopathic Effect¹ (7 days at 37°C and 5% CO₂)	Report results	1.6 × 10 ⁸ TCID ₅₀ per mL
Amplification of YFV Sequence by RT-PCR	~ 1000 base pair amplicon	~ 1000 base pair amplicon
Sterility (21-day incubation)		
Harpo's HTYE broth, 37°C and 26°C, aerobic ²	No growth	No growth
Trypticase Soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
DMEM with 10% FBS, 37°C, aerobic	No growth	No growth
Mycoplasma Contamination		
Agar and broth culture (14-day incubation at 37°C)	None detected	None detected
DNA detection by PCR of extracted Test Article nucleic acid	None detected	None detected

¹The Tissue Culture Infectious Dose 50% (TCID₅₀) endpoint is the 50% infectious endpoint in cell culture. The TCID₅₀ is the dilution of virus that under the conditions of the assay can be expected to infect 50% of the culture vessels inoculated, just as a Lethal Dose 50% (LD₅₀) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID₅₀ provides a measure of the titer (or infectivity) of a virus preparation. ²Atlas, Ronald M. <u>Handbook of Microbiological Media</u>. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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Program Manager or designee, ATCC Federal Solutions

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