

Influenza A Virus, A/WS/33 (H1N1) (Tissue-culture adapted)

Catalog No. NR-2759

(Derived from ATCC® VR-1520™)

Product Description: Cell lysate and supernatant from Madin-Darby canine kidney (MDCK) cells¹ infected with influenza A virus, A/WS/33 (H1N1) (Tissue-culture adapted).

Lot^{2,3}: 7677043

Manufacturing Date: 10MAR2007

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity Using MDCK Cells¹ Hemagglutination assay using cell lysate and supernatant from infected MDCK cells and 0.5% chicken red blood cells Infection of MDCK cells	Hemagglutination activity Report results	Hemagglutination activity Cell rounding and detachment
Sequencing of Species-Specific Region	Consistent with influenza A virus	Consistent with influenza A virus
Titer by TCID₅₀ Assay^{4,5} in MDCK Cells¹	Report results	7.4 X 10 ⁶ TCID ₅₀ /mL
RT-PCR Assay of Extracted RNA⁶	~ 1030 bp amplicon	~ 1030 bp amplicon
Sterility (21-day incubation) Harpo's HTYE broth ⁷ , 37°C and 26°C, aerobic Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C and 5% CO ₂	No growth No growth No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth No growth No growth
Mycoplasma Contamination Agar and broth culture (14-day incubation at 37°C) DNA detection by PCR of extracted Test Article nucleic acid	None detected None detected	None detected None detected

¹MDCK cells: ATCC® CCL-34™.

²The inoculum for NR-2759 was ATCC® VR-1520™ (Lot 4057803).

³Grown in Minimum Essential Medium containing Earle's salts and non-essential amino acids (Invitrogen™ 10370) supplemented with 1 µg/mL Trypsin, TPCK-treated (USB® 22725), 0.125% Bovine Serum Albumin (Cambrex™ 14-471F), 10 mM HEPES Buffer (Invitrogen™ 15630-080), 2 mM L-glutamine (Invitrogen™ 25030), and 1 mM sodium pyruvate (Invitrogen™ 11360) for 4 days at 34°C with 5% CO₂.

⁴The 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.

⁵3 days at 33°C with 5% CO₂.

⁶Bm-M-1 and Bm-M-1027R primers; Hoffman, E., et al. "Universal Primer Set for the Full-length Amplification of All Influenza A Viruses." *Arch. Virol.* 146 (2001): 2275-2289. PubMed: 11811679.

⁷Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

Date: 15 NOV 2007

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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