

Certificate of Analysis for NR-21729

Venezuelan Equine Encephalitis Virus, MX10-H4

Catalog No. NR-21729

Product Description: Cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero)¹ infected with Venezuelan equine encephalitis virus (VEEV), MX10-H4

Lot²: 62111125

Manufacturing Date: 24OCT2013

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity Using Vero Cells ¹	Report results	Rounding and detachment
Sequencing of Species-Specific Region (677 nucleotides)	Consistent with VEEV, MX10-H4	100% identity with VEEV, MX10-H4 (GenBank: KC344465)
Titer by TCID ₅₀ Assay ^{3,4} in Vero Cells ¹	Report results	2.8 × 10 ⁸ TCID ₅₀ per mL
Functional Activity by RT-PCR Assay	~ 750 bp amplicon	~ 750 bp amplicon
Sterility (21-day incubation) Harpo's HTYE broth ⁵ , 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 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

¹Vero cells: ATCC[®] CCL-81™

²Grown in Dulbecco's Modified Eagle's Medium (ATCC[®] 30-2002™) supplemented with 2% fetal bovine serum (ATCC[®] 30-2020™) for 2 days at 37°C with 5% CO₂.

³The 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.

⁴5 days at 37°C and 5% CO₂

⁵Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

Date: 20 AUG 2014

Signature: 

Title: Technical Manager, BEI Authentication or designee

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