Certificate of Analysis for NR-20737

Toxoplasma gondii, Strain P89

Catalog No. NR-20737

Product Description: *Toxoplasma gondii* (*T. gondii*), strain P89 was isolated from a porcine heart in Iowa in 1991. Strain P89 was deposited as a prototype strain for the type IX haplogroup and is a reference strain for the *Toxoplasma gondii* Genome Project at the J. Craig Ventor Institute's Genomic Sequencing Center for Infectious Diseases (GSCID).

Lot[1]: 59758080 **Manufacturing Date: 03APR2011**

TEST	SPECIFICATIONS	RESULTS
Genotyping Sequencing of uracil phosphoribosyltransferase (UPRT) intron 1 (~ 470 bp)	Consistent with *T. gondii,* haplotype IX	Consistent with *T. gondii,* haplotype IX[2] (Figure 1)
Functional Activity by PCR Amplification[3] UPRT intron 1	~ 560 bp amplicon	~ 560 bp amplicon
Viable Cell Count by Hemacytometry (pre-freeze)	> 10^6 cells/mL	8 x 10^6 cells/mL
Viability (post-freeze)[4]	Growth	Growth
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 Brain heart infusion, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic	 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 DNA Detection by PCR	None detected	None detected

[1]NR-20737 was produced by cultivation of the deposited material in human foreskin fibroblast cells (ATCC® CRL-1634™) with cell cultivation medium for parasites (ATCC medium 2222: adjusted to contain 10% heat-inactivated fetal bovine serum). The culture was propagated in 95% air, 5% CO_2 for 3 days at 37°C, until lysis of the host cell monolayer was reached.
[2]Haplotype identification is based on a sequence alignment of NR-20737, lot 59758080, to a reference sequence provided by the depositor. See figure 1 for NR-20737 sequence.
[3]Primer sequences and conditions for PCR are available upon request.
[4]Viable cells and signs of infection were seen after 6 days under cultivation conditions at 37°C.
[5]Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

Figure 1: *Toxoplasma gondii,* Strain P89 - UPRT Intron 1 Sequence

GTAATCCTTC AACCGAAGTT TGCTTTCCGT GACTCTGCCT CTTGGTTATA CTGCGTGGCC TTCCCGTCCT GCCGCTCCCT
TTCCTCCGCT TGCTGTTTAA ATGCTCGTCC TCGTTTTCCT TCCTGCCGCA TCCCCGTATA TTTTAAGGAG AGGGAAACAG
GCATGAGTTG GACGAAATGA AAGTTCTCGG CCTGTACGCC GGCTGTCGCG GTCGTTTGCA GATTGCTTTT TTCTTCGAAT
CGGTGCTGTA ACCCTCGCGA AGAACGACGC TGCAAACAAC TTCTCGAACT CTCAGTCGTG TACTTTACGT GCTTCCTTTC
AGGGACCTCC CCCCGCGTTA CTCATTTGTA TTCACAGCTA CGAAGTGTCT TGCAAGGTGG ATTCGTGCCA GGCTCCATGT
CTCACTCGGT GCGTTTTCGG AAAAGTTCAT TGTGAACGTT CCCCTTGCGT GTCATGACTT TATCAG

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Certificate of Analysis for NR-20737

Date: 23 SEP 2011 **Signature:** 

Title: Technical Manager, BEI Authentication or designee

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