

***Toxoplasma gondii*, Strain RH FLUC**

Catalog No. NR-59752

Product Description:

Toxoplasma gondii (*T. gondii*), strain RH FLUC (Δ hxgprt Δ ku80; uprt::TUB:FLUC, DHFR) is a transgenic, luciferase-expressing reporter strain derived from the virulent Type I knockout strain RH Δ hxgprt Δ ku80. NR-59752 was produced by cultivation of the deposited material in human foreskin fibroblast cells (ATCC® CRL-1634™) with Dulbecco's Minimal Essential Medium (DMEM) supplemented with 10% (v/v) heat-inactivated fetal bovine serum (HIFBS). The culture was propagated for 2 days at 37°C in an aerobic atmosphere with 5% CO₂ until lysis of the host cell monolayer was reached.

Lot: 70072156

Manufacturing Date: 03DEC2024

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis¹ Sequencing of 850 locus (~ 710 base pairs) Sequencing of uracil phosphoribosyltransferase (UPRT) intron 1 (~ 530 base pairs)	≥ 99% sequence identity to <i>T. gondii</i> , strain RH (GenBank: LLKL01000174.1) ≥ 99% sequence identity to <i>T. gondii</i> , strain RH (GenBank: LLKL01000320.1)	100% sequence identity to <i>T. gondii</i> , strain RH (GenBank: LLKL01000174.1) (Figure 1) 100% sequence identity to <i>T. gondii</i> , strain RH (GenBank: LLKL01000320.1) (Figure 2)
Phenotypic Analysis² Luciferase activity ³	Positive	Positive
Viable Cell Count by Hemacytometry²	> 10 ⁶ cells per mL	8.4 × 10 ⁷ cells/mL
Viability² 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ in DMEM supplemented with 10% HIFBS in human foreskin fibroblast cells (ATCC® CRL-1634™)	Growth	Growth
Sterility (14-day incubation)² 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	No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth
Mycoplasma Contamination² DNA Detection by PCR	None detected	None detected

¹Testing completed on bulk material prior to vialing and freezing.

²Testing completed on vialled, post-freeze material.

³Luciferase activity was determined using the Luciferase Assay System (Promega E1500). Parasites were lysed and incubated with luciferase assay reagent. Luciferase activity was measured using a luminometer with a bioluminescence emission spectra of ~ 560 nm.

Figure 1: *T. gondii*, Strain RH FLUC – 850 Locus Sequence

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CCTCGTCCAG CCGATGCTGC ATGGCTGCCA CCCCTTCCTC GTAGCCCCCC TGTCGGTGAG GCAACTGGTC CCCGTGGGGT
CTTTAAAAGG CTC AACCGGC TACCGGGGCT ACGCGAAGGC GACCCTCTC CACGAGAAG CCCTCCGACC TTATCGACGC
CCGTTCGCCC TGGCGACGGC TTGCCATCGC TTCTGGGTGT CGGCGCTGCT TTCCCTGGAG GCATCCCTGT TTGTGGGGAG
GAAGCAGTAG TGGCACTAAT GGGTGCCTGT GCCTGCCTCC CTCCTTGCTC CGGTGAGCTG CTGCCCCCA CAGGTCCCTC
TTGCTGCATG CCTCGTGCAG GAGCGCTTGG CGTCGGTGAG TCACCATCTG ACGGTGAAAC TGAGCTGTCTG CCCAAGCCGC
TGCTGCCTGA CGACGAAGAA GGCCACCTG AGTGGATTAT GACGACGTC CCCTCTGGCC CGCCCTCAGA GCCCACGAAA
AATGAAGCAA GACGCGGGCC TTGCAGTGGG GACGGTGATG GCGGCGAACG TTTTCCGGGA ACGTGTGTTC CGATGTCGCT
TTTCGGGGAT GTTTCCTTTG GAAGCGAGCC CTTTGCGCCG CAGCACGGAC TTTGTGTGTC TGCTGGTACA CGGACAGTCT
CTGAAGGACT CCCCCTTGCA GGTGTGGAAT GTAAAGGCGC CTCTACGGGT TTCCCCCAG ATGCTGGAGA AGG
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Figure 2: *T. gondii*, Strain RH FLUC – UPRT Intron 1 Sequence

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GACAAACGAC CAGGAAGAAA GCATTCTCCA GGACATCATC ACGAGGTAAT CTTTCAACCG AAGTTTGCTT TCCGTGACTC
TGCTGTGGG TTATACTGCG TGGCCTTCCC GTCCTGCGGC CCCCTTTCTT CCGCTTGCTG TTTAAATGCT CGTCCTCGTT
TTCCTTCCTG CCGCATCCCC GTATATTTTA AGGAGAGGGA AACAGGCGTG AGTTGGACGG AATGAAAGTT CTCGGCCTGT
ACGCCGGTTG TCGCGGTCGT TTGCAGATTG CTTTTTCTT CGAATCGGTG CTGTAACCCT CGCGAAGAAC GACGCTGCAA
ACGACTTCTC GAACTCTCAG TCGTGTACTT TACGTGCTTC CTTTCAGGGA CCTCCCCCTG CGTTACTCAT TTGTATTCAC
AGTACGAAG TGTCTTGCAA GGTGGATTCC TGCCAGGCTC CATGTCTCAC TCGGTGCGTT TTCGAAAAAG TTCATTGTGA
ACGTTCCCCT TCGGTGTCAT GACTTTATCA GTTTTCCCAA TGTGGTGCTC AT
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Technical Manager or designee, ATCC Federal Solutions

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