

## **Certificate of Analysis for NR-8099**

## Ferret Orthologue of Homo sapiens CD4, Forward Primer

## Catalog No. NR-8099

This reagent is the tangible property of the U.S. Government.

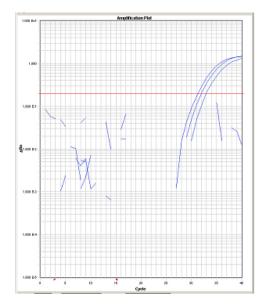
**Product Description:** NR-8099 pairs with NR-8100 to amplify the ferret (*Mustela putoris furo*) orthologue of *Homo sapiens* CD4 (CD4 molecule) (NCBI GeneID: 920).

Lot: 1025 Manufacturing Date: 14JUN2007

TEST	SPECIFICATIONS	RESULTS
PCR Amplification <sup>1</sup>		
Recommended primer concentration	Report results	300 nM
Observed C <sub>T</sub>	Report results	32.1 (see Figure 1)
Product T <sub>m</sub>	Report results	79.5°C (see Figure 2)
Amplification and Sequence Verification <sup>2</sup>	CD4	CD4
Content (OD <sub>260</sub> )	Report results	1.74
Content (µg)	Report results	57.44
Content (pmol)	Report results	8979.07
Volume Needed for 100 μM Solution (μL)	Report results	89.79
Purity by HPLC	> 75%	88.43% (see Figure 3)

<sup>&</sup>lt;sup>1</sup>Real-time PCR assay with a standard cDNA template derived from mitogen-activated ferret (*Mustela putoris furo*) PBMCs, splenocytes and lung tissue.

<sup>&</sup>lt;sup>2</sup>The PCR product of the target gene was cloned into pCR<sup>®</sup>2.1-TOPO<sup>®</sup>. Plasmid DNA was sequenced using the M13 reverse primer. Sequence identities were verified by BLASTN analysis against the NCBI database.



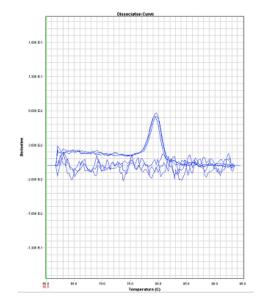


Figure 1. Amplicon amplification ( $\Delta Rh$  versus Cycle Number).

Figure 2. Amplicon dissociation (Derivative versus Temperature (°C)).

800-359-7370



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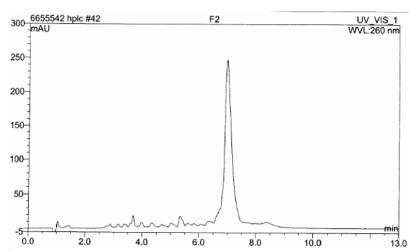


Figure 3. HPLC trace of purified oligonucleotide (Absorbance versus Elution Time).

**Date:** 20 DEC 2007 **Signature:** Signature on File

Title: Technical Manager, BEI Authentication or designee

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