

## **Certificate of Analysis for NR-8103**

## Ferret Orthologue of Homo sapiens CD14, Forward Primer

## Catalog No. NR-8103

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

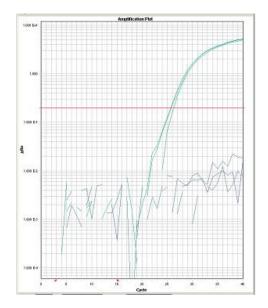
**Product Description:** NR-8103 pairs with NR-8104 to amplify the ferret (*Mustela putoris furo*) orthologue of *Homo sapiens* CD14 (NCBI GeneID: 929).

Lot: 1029 Manufacturing Date: 14JUN2007

| TEST   | SPECIFICATIONS | RESULTS               |
|--|----------------|-----------------------|
| PCR Amplification <sup>1</sup>                       |                |                       |
| Recommended primer concentration                     | Report results | 250 nM                |
| Observed C <sub>T</sub>                              | Report results | 25.4 (see Figure 1)   |
| Product T <sub>m</sub>                               | Report results | 82.5°C (see Figure 2) |
| Amplification and Sequence Verification <sup>2</sup> | CD14           | CD14                  |
| Content (OD <sub>260</sub> )                         | Report results | 1.90                  |
| Content (µg)   | Report results | 58.16                 |
| Content (pmol)                                       | Report results | 9348.08               |
| Volume Needed for 100 μM Solution (μL)               | Report results | 93.48                 |
| Purity by HPLC                                       | > 75%          | 87.89% (see Figure 3) |

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.



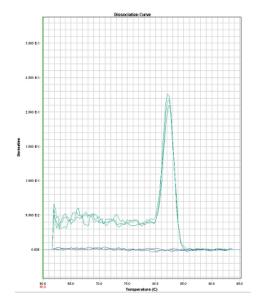


Figure 1. Amplicon amplification ( $\Delta Rh$  versus Cycle Number).

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

800-359-7370



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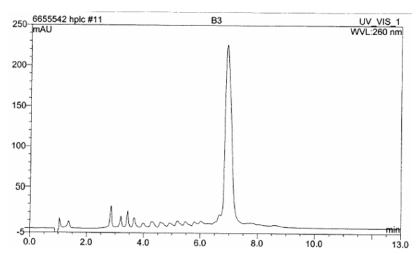


Figure 3. HPLC trace of purified oligonucleotide (Absorbance versus Elution Time).

**Date:** 16 JAN 2008 **Signature:** Signature on File

**Title:** Technical Manager, BEI Authentication or designee

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