

## Viral Filtration Efficiency (VFE) Final Report

Test Article: RespilonAntiVirus  
 Purchase Order: NTPO-2012-024  
 Laboratory Number: 666318  
 Study Received Date: 05 Sep 2016  
 Test Procedure(s): Standard Test Protocol (STP) Number: STP0007 Rev 07

**Summary:** The VFE test is performed to determine the filtration efficiency by comparing the viral control counts to test article effluent counts. A suspension of bacteriophage ΦX174 was aerosolized using a nebulizer and delivered to the test article at a constant flow rate. The aerosol droplets were drawn through a six-stage, viable particle, Andersen sampler for collection. This method allows a reproducible challenge to be delivered to the test articles. The VFE test procedure was adapted from ASTM F2101. All test method acceptance criteria were met.

Area Tested: ~45.6 cm<sup>2</sup>  
 VFE Flow Rate: 28.3 Liters per minute (L/min)

**Results:**

Test Article Number	Percent VFE (%)
1	99.9
2	99.9
3	99.9
4	>99.9 <sup>a</sup>
5	99.9

Note: Plate count totals for each stage are available upon request.

<sup>a</sup> There were no detected plaques on any of the Andersen sampler plates for this test article.

Mean Positive Control Count: 1,826 plaque forming units (PFU)  
 Negative Control Count: <1 PFU  
 Mean Particle Size (MPS): 2.8 μm

  
 Study Director Brandon L. Williams

17 Oct 2016  
 Study Completion Date

