

LABORATORY REPORT

IBT LABORATORIES

Specializing in molecular & cellular immunology

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Page number: Page 1 of 1

70398

NAS Inc

Attn: John Fry

1620-D Satellite Boulevard

Duluth, GA 30097

Patient: **Duratek, Non-Woven**

PID: Acc#: **1005050639**

Sex: **U** DOB: Age:

Physician:

Collection Date: **04/02/2010**

Received Date: **05/05/2010**

Final Report Date: **05/25/2010**

<u>Test</u>	<u>Result</u>	<u>Flag/Class</u>	<u>Units</u>	<u>Reference Ranges</u>
<u>Allergen Barrier Testing with Air Flow Device</u>				
Air Flow Rate Through Fabric (Client Fabric)	32.9		L/min	
Der f1 Monoclonal ELISA (Client Fabric)	<1.30		ng	
Fel d1 Monoclonal ELISA (Client Fabric)	<0.31		ng	
<hr/>				
Air Flow Rate Through Control Fabric	35.1		L/min	
Der f1 Monoclonal ELISA Control Fabric	170.8		ng	
Fel d1 Monoclonal ELISA Control Fabric	35.5		ng	

An apparatus based on the design reported by Vaughan, JW et al (JACI 1999; 103:227-231) was used to test allergen barrier properties of fabrics. Airflow measurements were calibrated against a fabric control with a known airflow rate. Five hundred milligrams of a dust sample with known amounts of the indicated allergens were pulled across each fabric. A filter cassette mounted downstream from the fabric collected any allergen that was able to penetrate the fabric. The filter was extracted in 2.0 mL of 1% BSA in PBS-Tween 20 overnight. The extract was assayed the following day with an ELISA for the relevant allergen. When the results of this airflow test for a fabric are less than 0.31 ng detected for Fel d1 and 1.3 ng detected for Der f1, it can be concluded that the fabric being tested is a highly effective barrier to Fel d1 and Der f1 allergen transfer. It is difficult for non-membrane fabrics to have negative results for both Der f1 (Dust Mite allergen) and especially Fel d1 (Feline allergen) as it is a smaller allergen protein than Der f1. If low measurable amounts of Der f1 (<1.3ng) and Fel d1 (<5.0ng) are detected it can be concluded that the fabric tested is an effective barrier to both Cat and Dust Mite allergen. This document is not to be used for commercial posting.

A 24 year old reference range is shown when no age is given.

Michelle L. Altrich, Ph.D.
Laboratory Director