

### Western Blot Analysis

Qualitatively assesses the molecular weight distribution of antigenic protein in latex extracts by separating the proteins with SDS-PAGE, transferring them to a nitrocellulose or PVDF membrane and then identifying the latex proteins using anti-latex antibody.



For pricing information, please contact:

LEAP Testing Service  
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### Specialized Studies

LEAP Testing scientists can also perform specialized studies using state-of-the-art research techniques. These may include: development of new tests, specialized product testing or research protocols. Study protocols and costs would be outlined in a proposal after the study goals have been fully evaluated. Past examples include food allergy/sensitivity ELISAs such as peanut and gluten.



## Latex Allergy: A Serious Issue

Allergy to latex products can result in serious and sometimes life-threatening reactions. Sensitivity to latex has been estimated to affect as many as 8 to 10 percent of health care workers. It also impacts patients, and is estimated to affect up to 73 percent of those with spina bifida. Reactions range from contact urticaria (hives) to life-threatening anaphylaxis. For this reason it is necessary to precisely quantify the level of residual latex protein remaining in manufactured products.

Guthrie's LEAP Testing Service is A2LA accredited. Our LEAP Testing Service was introduced in 1993 and our laboratory was the first in the world to commercially test latex products by ELISA Assay. To date we have tested more than 42,000 samples. LEAP testing scientists are highly skilled and can test anything that contains latex – gloves, condoms, dental dams, swim caps, flooring, foam medical devices, erasers, rubber bands, footwear, bandages -- or anything else that may contain latex proteins.

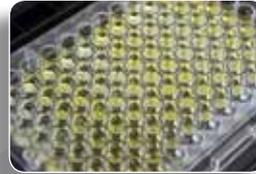
The LEAP Testing Service offers services in determining the extractable proteins in latex products. A number of tests can be performed on latex products to obtain this information.



## Tests Offered

### **ASTM D6499\* Inhibition ELISA**

This assay uses an Inhibition ELISA to quantitate antigenic latex protein in product extracts. In an Inhibition ELISA test, soluble antigens in the extract compete for binding to specific anti-latex antibodies and block antibody binding to latex antigen immobilized on the surface of the assay plate. The detection limit of the assay is 0.03 µg/ml.



### **ASTM D5712\* Lowry with Precipitation**

Quantitatively measures the level of extractable proteins in latex products using a precipitation step to decrease the levels of interfering substances. The detection limit of the assay is 8.3 µg/ml.



### **ASTM D7588 Chemical Sensitivity**

The chemical sensitivity assay was developed to quantify residual chemicals (vulcanization accelerators) used in the manufacturing of latex devices. Individuals will develop allergic contact dermatitis while being exposed to these residual chemicals. Monitoring the residual chemicals can give customers useful data to lower the amount of exposure to these chemicals in their final products. The detection limit of the assay is 7.5 µg/ml.



### **ASTM D6124 Residual Glove Powder Analysis**

Quantitatively measures the amount of powder on the surface of gloves. The assay is performed by washing the glove with dH2O. The wash is then filtered through a glass fiber filter. The change in weight of the filter reflects the amount of powder present on the glove. Results are given in terms of mg powder/glove. The ASTM has set limits for the amount of powder on the surface of gloves. These standards are: <1mg/glove for "Powder Free" gloves, <10mg/glove for examination gloves, and <15mg/glove for surgical gloves.



### **Guayule Latex ELISA**

This assay uses an Inhibition ELISA to quantitate antigenic Guayule latex protein in product extracts. In an Inhibition ELISA, soluble antigens in the extract compete for binding to specific anti-latex antibodies and block antibody binding to latex antigen immobilized on the surface of the assay plate.



\*A2LA accredited assays.