



LRA by ELISA/ACT® Testing Overview

WHAT ARE THE CAUSES OF CHRONIC DISEASE AND AUTOIMMUNITY?

One of the major advancements in medicine in recent years has been our expanded understanding of the immune system and its far broader and more important role in general health and wellness. Initially, it was thought that our immune system was only involved in defending our bodies against threatening agents such as bacteria, viruses, and environmental “invaders”. Medical science has recently come to recognize that the immune system has defense as well as repair capabilities. The defense component of the immune system fights off the “invaders” that create disease, while the repair component plays an important role in restoring tissue and organs from damage that the disease state may have caused.

If either the defense or repair function becomes overburdened or overstressed, immune dysfunction and disease may result. Recent studies have shown that when the defense elements or white blood cells (lymphocytes) of the immune system are mobilized against the effects of foreign antigens, the vital repair process suffers. Organs and tissue weaken over time, and the body’s ability to fight off future assaults is reduced. The effect of immune system dysfunction can be chronic inflammatory and autoimmune diseases that often defy treatment.

The most common assaults that pose the greatest burden to our immune system on a daily basis are digestive remnants and environmental antigens. By identifying these antigens and eliminating them from our exposure, the immune burden can be reduced or eliminated, allowing the defense and repair systems to return to optimal function. The result is improved, sustainable health.

The Lymphocyte Response Assay (LRA) by ELISA/ACT®, developed by ELISA/ACT Biotechnologies LLC (EAB), makes it possible for physicians to examine the immune system’s general health by monitoring delayed hypersensitivity response of up to 450 common substances. The test can identify if an individual is reactive to these substances, which may be provoking his/her chronic condition. It also provides a personalized treatment plan to help eliminate these sensitivities and restore overall health.

HOW IS LRA BY ELISA/ACT TESTING DIFFERENT FROM RAST TESTS?

RAST (IgE) only detects **immediate** allergic reactions to about 100 dietary or environmental substances. This test is useful to assess hives, wheezing, or shock that may appear minutes after being exposed to a reacting food or chemical.

The LRA by ELISA/ACT are comprehensive and reliable tests able to identify the causes of delayed allergy/hypersensitivity reactions. These can occur from hours to weeks after exposure. This LRA can evaluate all three delayed hypersensitivity pathways, including Reactive Antibody, Immune Complex, and Cell Mediated. Because the LRA by ELISA/ACT is functional, it allows EAB to screen out protective antibodies and identify only those reactive and symptom-provoking responses to items tested. Most people do not realize they are reacting to these substances since the onset of symptoms does not occur quickly. For example, people may develop achiness hours to days after a food or chemical exposure. The LRA by ELISA/ACT measures sensitivities up to 450 items from the following general categories. A complete list of the items tested can be provided upon request.

- Foods
- Additives/Preservatives
- Environmental Chemicals and Toxic Minerals
- Molds
- Danders, Hairs, and Feathers
- Medications
- Therapeutic Herbs
- Food Colorings

WHAT ARE SOME OF THE SYMPTOMS OF IMMUNE-RELATED HEALTH PROBLEMS?

Muscle Aches	Joint Pain	Fatigue
Inflammation	Dizziness	Bloating/Water Weight
Insomnia	Depression	Heart Palpitations
Migraine Headaches	Weight Management	Skin Rashes
Inflammatory Bowel Conditions	Sinus Conditions	Respiratory Conditions

HOW IS LRA BY ELISA/ACT TESTING UNIQUE?

Founded in 1984, EAB offers the *first* and *only* blood tests that provide a complete evaluation of the body's delayed immune response. A blood drawing system is used that keeps lymphocytes and the sample from being activated before analysis. Prior to the blood draw, the patient must follow simple preparation instructions to ensure a proper blood sample. EAB receives the patient's one-ounce blood sample within 24 hours and analyzes it promptly. The LRA by ELISA/ACT's unique *ex vivo* system tests the lymphocytes as though they are still in the bloodstream being exposed to foreign invaders, thereby providing highly specific and accurate information.

Within five to seven days, the physician receives the patient's results plus an optional treatment guide with lifestyle and behavioral recommendations based on a health assessment questionnaire. This complete assessment of delayed reactions can be useful to the patient and the physician in developing a cost-effective, individualized treatment plan to improve the patient's overall health.

WHAT IS INCLUDED IN THE PERSONALIZED TEST RESULTS?

- An accurate, detailed report identifying up to 450 substances as nonreactive, moderately reactive, and/or strongly reactive
- An easy-to-use guide explaining each reactive item, along with suggestions for substitutions
- Individualized nutritional supplement and behavioral recommendations based on the patient's health assessment questionnaire completed prior to the test (if requested separately as part of the interpretation)
- A comprehensive *Alkaline Way* CD-ROM explaining the LRA by ELISA/ACT program and how to easily and effectively incorporate the program into the patient's lifestyle

A Window of Opportunity to Repair and Restore Tolerance

To begin the repair process of the immune system, EAB recommends avoidance of the offending items for three to six months, depending on the severity of the reaction. After this period, the patient can slowly add these substances to his/her diet one at a time, usually without experiencing any symptoms. Upon following the LRA by ELISA/ACT program, it is likely that the patient will notice improvements in his/her health as soon as a few days or weeks. EAB also recommends a retest within a year to identify any new sensitivities and to evaluate the patient's progress.

WHY ARE LRA BY ELISA/ACT TESTS THE RIGHT CHOICE?

Anyone with a chronic condition knows the cost and frustration of searching for causes and cures -- and not finding them. With LRA by ELISA/ACT's proven testing and personalized treatment plans, a healthy and revitalized immune system can be achieved.

SCIENTIFIC REFERENCES

1. Altman LC. *Immunology and Allergy Clinics of North America: Autoimmune Diseases*. W.B. Saunders Company, Philadelphia, 1993; 13(2).
2. Bellanti JA. *Immunology III*. W.B. Saunders Company, Philadelphia, 1985.
3. Brostoff J and Challacombe SJ. *Food Allergy and Intolerance*. Balliere Tindall, England, 1987.
4. Concer JM, Newberg DS, and Eades SN. Lectins in Wheat Gluten Proteins. *J Agric Food Chem* 1983; 31:939-941.
5. Deuster P and Jaffe R. A Novel Treatment for Fibromyalgia Improves Outcomes in a Community-Based Study. *J Musculoskeletal Pain* 1998; 6(2):133-149.
6. Kaufman L and Reiss E. Serodiagnosis of Fungal Diseases in Manual of Clinical and Laboratory Immunology. *Am Soc Micro* 1992.
7. Lester MR. Sulfite Sensitivity: Significance in Human Health. *J Am Col Nutr* 1995; 14:229-232.
8. Jaffe R. Autoimmunity: Clinical Relevance of Biological Response Modifiers in Diagnosis, Treatment, and Testing, Part I. *Intl J Integrative Med* 2000; 2(2):16-22.
9. Jaffe R. Autoimmunity: Clinical Relevance of Biological Response Modifiers in Diagnosis, Treatment, and Testing, Part II. *Intl J Integrative Med* 2000; 2(4):58-65.

Note: For additional literature, please contact EAB's Client Services Department at 800.553.5472.

LRA BY ELISA/ACT SUCCESS STORIES

"In the past decade of my practice, I have been using the elimination/provocation test, when appropriate, combined with the LRA by ELISA/ACT...In my opinion and experience, this is the state-of-the-art in food sensitivity detection."

Zoltan P. Rona, MD

Toronto, Ontario, Canada

from *Return to the Joy of Health*, p. 69

"I have not had any migraines since I started on the LRA by ELISA/ACT program after having them for 20 years. It's great to be free of them."

A patient from Herndon, VA*

"I have found LRA by ELISA/ACT to be the most accurate and cost-effective means of detecting delayed hypersensitivities. The program provides the most powerful tool for health regeneration that I have encountered for patients with chronic immune conditions such as fibromyalgia, diabetes, arthritis, and multiple sclerosis, to name a few."

Susan E. Brown, Ph.D., CCN

Author of *Better Bones, Better Body*

"The LRA by ELISA/ACT has made a tremendous impact on my quality of life. I lost 35 pounds and feel stronger and more energetic each day."

A patient from Washington, DC*

I have worked with EAB for the last six years and have found LRA by ELISA/ACT to be the most reliable and effective solution to solving my patients' chronic health conditions."

Norm Schwartz, MD

Milwaukee, WI

I was amazed at my fast recovery from a four-year struggle with chronic fatigue syndrome and depression once I began the LRA by ELISA/ACT program. I have returned to work, and my energy level and health are stronger than before I got sick. I never thought I could be this healthy."

A patient from Newton, MA*

"Just three days after starting the LRA by ELISA/ACT program, my chronic back and joint pain disappeared and have not come back. I am able to exercise regularly and have never felt stronger."

A patient from Ghana*

*Names and reports on file with EAB



ELISA/ACT BIOTECHNOLOGIES LLC

46161 Westlake Drive, Suite 300A, Sterling, VA 20165

phone: 703.450.2980 • 800.553.5472 • fax: 703.450.2981 • e-mail: clientservices@ELISA/ACT.com • www.ELISA/ACT.com

v1.0-11/07