Comparison of Delayed Allergy Testing

Mechanism/Test	Lymphocyte Cell Culture/ **LRA by ELISA/ACT™**[1]	Memory Antibodies/IgG	Automated Cytotoxic Assay/ALCAT[2]	Chemicals from Cells MRT
Labs	**ELISA/ACT Biotechnologies**	Multiple Labs including Cyrex, Genova, Immuno Labs, Meridian Valley	Cell Science Systems	Oxford Biomedical Technologies
Immune Pathways Tested				
Type II Reactive Antibodies				
IgG*, IgG4*	✓	✓		
IgA*	✓			
IgM*	✓			
Type III Immune Complex	✓			
Type IV T-Cell Mediated	✓			
Particles 10 microns or chemicals released from cells			✓	✓
Number of test items	**504**	87—178	320	150

[1]Only ELISA/ACT Biotechnologies LLC's (EAB) Lymphocyte Response Assay (LRA) by ELISA/ACT® measures all three types of delayed sensitivity reactions through activation of lymphocytes just as they occur in the body. Using only an ounce of blood (1/16th of what is donated at a blood bank), 450-plus items, including foods, additives and preservatives, environmental chemicals, molds, toxic minerals, danders/hairs/feathers, medications, and herbs, can be tested for specific reactions. LRA by ELISA/ACT's comprehensive, reliable tests have helped over 30,000 patients with chronic pain and autoimmune conditions who have often had prior multiple failures to other therapeutic treatment programs.

[2]Measures a composite of granulocyte destruction, activation of blood clotting, and complement activation of white cells. Not a functional immunology procedure. Does not measure lymphocyte-specific responses.

***** Only a functional, cell-based assay can distinguish between protective ("good"; non-complement activating) or reactive ("bad"; complement activating) antibodies since lymphocyte cells are turned on by clinically active antibodies. Protective antibodies mean people are tolerant ("immunized") and may eat those substances. Measurement of total antibodies is not related to hypersensitivity. Only antigen-specific measures have clinical meaning.

ELISA/ACT BIOTECHNOLOGIES
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Healthcare practitioners: Its easy to start offering the **LRA** tests to your patients. Call or email today and request a Professional Packet or order test kits.

LRA by ELISA/ACT™

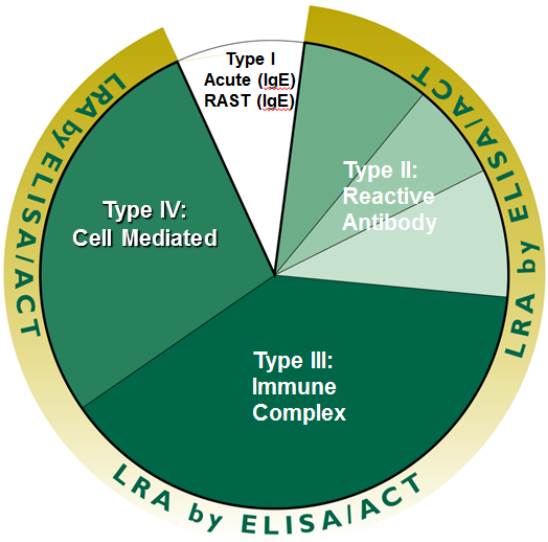
Function, Complete, *Ex-Vivo* Tests of Delayed Hypersensitivity

If you currently use other tests of delayed hypersensitivity, you are likely familiar with their general limitations. The advanced technology utilized in the LRA by ELISA/ACT avoids the limitations seen in the other delayed hypersensitivity testing.

LRA by ELISA/ACT tests are ***functional*** rather than static.

> In contrast, IgG tests for example, are static, unable to distinguish symptom-provoking antibodies from protective ones, resulting in high numbers of false positives that hurt patient compliance and limit successful outcomes.

LRA by ELISA/ACT tests are ***complete*** measuring **all 3 delayed hypersensitivity pathways** from the same sample at the same time.



> Quantitation of IgG antibodies omits information about IgG subclasses, IgA, IgM (Type II), immune complexes (Type III), and T-cell reactions (Type IV).

LRA by ELISA/ACT tests are ***ex-vivo*** – making it possible to allow living lymphocytes to react in the laboratory *just as they do* in the body. Direct observation of reactive lymphocytes contributes to accuracy of LRA tests.

> The particle size and mediator release tests attempt to identify delayed allergies by measuring markers suggestive of immune response. Because the substances measured may be caused by many things other than an immune response, these test methods understandably have low reproducibility and offer only short-term benefits. *(For more information on particle size testing, see "Reproducibility and Reliability of Two Food Allergy Testing Methods" by Hodsdon and Zwickey, published in Natural Medicine Journal, 2010.)*