

## TruStrip RDT Chicken Egg Ovalbumin (Ova/Gal d 2) Rapid Test cards



**Cat# 6050-RDT-25 (25/pk)**

**Cat# 6050-RDT-50 (50/pk)**

**A lateral flow immunochromatographic test for the detection of Ovalbumin as HCPs contaminant in Biological Samples**



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## Ovalbumin rapid test Kit Contents

Components	6050-RDt-25	6050-RDt-50
Ovalbumin rapid test cards, individually packed in sealed aluminum pouch + 1 dropper , <b>#6050-TC</b>	25 cards	50 cards
Ovalbumin positive control (1 ug/ml), (red cap); 0.5 mL, <b>#6050-PC</b>	1 Vial	1 Vial
Ovalbumin negative control (blue cap); 0.5 mL, <b>#6050-NC</b>	1 Vial	1 Vial
Sample diluent; 25.0 mL, <b>#SD-5</b>	1 Vial	1 Vial
Complete Instruction Manual	6050-RDT-25	6050-RDT-25

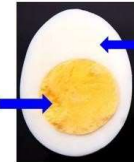
### Intended Use

Ovalbumin rapid test kit is a lateral immunochromatographic test card for the detection of Ovalbumin as host cell proteins (HCPs) contaminant in Biological Samples such as vaccines or proteins made in eggs. The kit is specifically formulated to be used in non-laboratory or field setting without the use of sophisticated lab equipment or personnel. The test provides a visual colour (red line) in 5-10 minutes. It is for research use only (RUO) or for in vitro testing of Ovalbumin.

### INTRODUCTION

#### Major Egg Proteins and Allergens

**Egg Yolk Proteins**  
 α-livetin (Gal d 5)  
 Yolk glycoprotein (Gal d 6)  
 b-livetin (α2-glycoprotein)  
 g-livetin (IgY)  
 Vitellins  
 Phosvitins  
 Proteases and inhibitors



**Egg White Proteins**  
 Ovomucoid (Gal d 1, ~11%)  
 Ovalbumin (Gal d 2, ~54%)  
 Ovotransferrin (Gal d 3 ~12%)  
 Lysozyme (Gal d 4 ~3.4%)  
 Ovomucin (~3.5%)  
 Ovoglobulins G2/G3 (8%)  
 Ovoinhibitor (1.5%)  
 Avidin cystatin

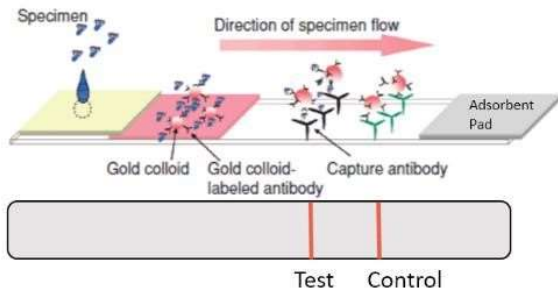
Chicken egg is a major source of **Ovalbumin (OVA)** protein. A 386aa protein in chicken with an Isoelectric point of 4.6, is known to contain two potential N-glycosylation sites at Asn-292 and Asn-311, while a single carbohydrate chain is attached

only on the Asn-292 residue of the secreted genuine OVA. In SDS-PAGE under non-reducing conditions, OVA have an apparent molecular weight of 40,45,63 and 72kD, with the 45kD form as the main constituent. Under reducing conditions only a 45kD band is observed. Besides providing nutrition to yolk in egg its function is unknown, OVA belongs to serpin family of protease inhibitors.

OVA is one of the major allergens in chicken egg white, and is often the cause of hypersensitivity reactions to food. It serves as a suitable model allergen for studying the relationship between structure and function, because the amino acid sequence and posttranslational modifications of the protein are known.

Egg allergies occur in about 0.5 percent of the population and in about 5 percent of children. Because influenza and yellow fever vaccines are both made in eggs, egg proteins (**primarily ovalbumin**) are present in the final product. Residual quantities of egg proteins found in the influenza vaccine (i.e., about 0.02-1.0 ug per dose) are sufficient to induce severe and rarely fatal hypersensitivity reactions in children with egg allergies. ADI has developed a rapid test for detecting ovalbumin using polyclonal antibodies, which is of growing importance in standardization and characterization of allergens (ovalbumin) and as a tool for the detection and quantification of egg albumin in food products.

## PRINCIPLE



Ovalbumin in samples are captured by specific antibodies on the test line and detected by Gold-labeled antibody conjugate.

The test line is visible as a reddish line on the card. The intensity of test line (red) is directly proportional to the amount of Ovalbumin present in the sample. Control lines contains antibodies that captures gold labeled antibodies. The control line

must be obtained with or without Ovalbumin to assure the integrity and functionality of the Ovalbumin rapid test.

## PRECAUTIONS

The ADI Ovalbumin rapid test is intended for *in vitro research* use only. For proper analysis of results, be sure to include positive and negative controls as appropriate. All test must be done as appropriate for the sample and disposed accordingly. Follow good laboratory practices, and avoid ingestion or contact of any reagent with skin, eyes or mucous membranes.

<http://4adi.com/objects/catalog/product/extras/ELISAKit-SDS-MSDS-Set-1.pdf>

## Items Required but not supplied with this kit

*Precision pipettes* (100-200  $\mu$ l) for processing and dispensing of samples.

Ovalbumin negative and positive samples. ADI provides appropriate controls as separate item.

## Sample Preparation

We recommend diluting the samples with approximate concn of 0.01-10  $\mu$ g/ml for testing. Dilute the samples in the supplied diluent. Prepare at least 100  $\mu$ l per test. Dilute egg white samples 1:100K using sample diluent. Some samples may have to be diluted more or less but 1:100K should bring most normal samples to within the testing range. If the sample is other than egg, figure out your own sample dilution .

## Limitations

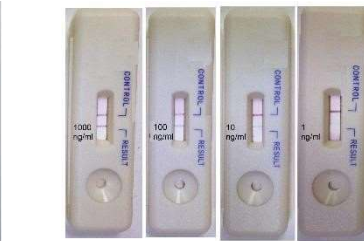
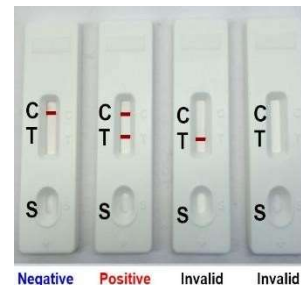
This kit has not been tested with food, soup, drinks or other samples that are heat treated or cooked. Users may test and optimize the use of such samples.

## STORAGE AND STABILITY

The test are stable at 2-8 $^{\circ}$ C until the expiration date printed on the label.

## OVALBUMIN TEST PROCEDURE

1. Remove the test device from foil pouch and place it on a flat and dry surface. Bring all reagents to room temp (25-28 $^{\circ}$ C).
2. Using the disposable dropper in the bag dispense 2 drops or 100  $\mu$ l of Ovalbumin positive control (1  $\mu$ g/ml), negative control (sample diluent only) or the diluted samples into the round sample port (S).
3. **Note:** Do not overload the sample (>100  $\mu$ l) or test <50  $\mu$ l. If sample is limiting then sample diluent can be added to make the 100  $\mu$ l volume.
4. Leave the device for 1-10 mins and watch the development of red lines in the control (Control, top) and the result zone (R bottom). Top control line must always be visible in order for the test to be valid. The bottom result line appears within 1-10 mins and results recorded. Non-Specific test lines may appear after 15 min even in the absence of Ovalbumin. No lines also makes the test invalid and may indicate expiration or non-function of the kit.
5. Record results taking the picture or store the device in a plastic bag at room temp.



Ovalbumin 1000, 100, 10 and 1 ng/ml

## Sensitivity

The test has a sensitivity of ~1-10 ng/ml (test line is visible as a faint line, see pic on the right). Intensity of the test line is proportional to Ovalbumin concentration. Therefore, it is possible to get a semi-quantitative concentration of Ovalbumin in the sample by comparing it with a known concentration of the reference standard.

## Related Items

Catalog# Product Description

800-110-RDT	TruStrip RDT Protein A (HCPs contaminant) Rapid Test cards,25/pk
800-120-RDT	TruStrip RDT Protein G (HCPs contaminant) Rapid Test cards,25/pk
1200-RDT-25	TruStrip RDT Human Albumin Rapid test cards,25/pk
7000-30-RDT	TruStrip RDT Rabbit Albumin Rapid test cards, 25/pk
7000-40-RDT	TruStrip RDT Cat Albumin Rapid test cards, 25/pk
7000-50-RDT	TruStrip RDT Dog Albumin Rapid test cards, 25/pk
7000-RDT-25	TruStrip RDT Dog Serum Albumin Rapid Test cards, 25/pk
9000-RDT-25	TruStrip RDT Bovine Serum Albumin (BSA) Rapid Test cards, 25/pk
ALB15-RDT-50	TruStrip RDT Chicken Serum Albumin (CSA) Rapid Test Cards, 25/pk
RDT-3010-GA	TruStrip RDT Goat Albumin Rapid Test cards,25/pk
RDT-5010-RA	TruStrip RDT Rat Albumin Rapid Test cards,25/pk
RDT-6010-HA	TruStrip RDT Horse Albumin Rapid Test cards,25/pk
RDT-7010-PA	TruStrip Rapid Pig Albumin Rapid Test cards,25/pk
<b>6050</b>	<b>Chicken Egg Ovalbumin (Gal d 2) ELISA Kit, 96 tests, Quantitative</b>