

# **ALPHADIA IFA ANTI – ADRENAL (M. Adrenal) IgG Assay**

IMMUNOFLUORESCENCE ASSAY  
FOR THE DETECTION  
OF ANTI - ADRENAL IgG  
ANTIBODIES IN HUMAN SERUM

CAT # AD AMC48      48 TESTS  
CAT # AD AMC96      96 TESTS

FOR IN VITRO DIAGNOSTIC USE  
CONS : 2 - 8°C

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## INTRODUCTION

Adrenal antibodies are associated with the idiopathic form of Addison's disease, and are more common in males than females. Early detection of auto-antibodies in patient with sub-clinical adrenal deficiency who develop an adrenal crisis during infection or appendicitis, can be life saving. Cases have been noted where young patients with unsuspected Addison's disease have died before a diagnosis had been reached. Many patients with adrenal antibodies also have an overlap of additional diseases such as thyroid disease, insulin-dependent diabetes, and secondary amenorrhoea. Screening for adrenal antibodies in these circumstances could be very beneficial as very low incidence of adrenal antibody are found in normals.

## MATERIALS PROVIDED

Storage and stability of components

1. FITC Conjugate N°CGEM2 - 3 ml with Evans Blue Counterstain is to be stored at 2-8°C upon receipt. The conjugate is stable at this temperature until expiration date on the vial label.
2. The antigen slides of Monkey Adrenal sections must be stored at 2-8°C or lower upon receipt. Check label for specific expiration date.
3. Anti-Adrenal positive control N° PCAD (0.5 ml lyophilized) The control contains 0.095% sodium azide as a preservative. In the lyophilized state, the control sera should be stored at 2-8°C. Refer to the product label for expiration date. Once reconstituted with 0.5 ml distilled water, small aliquots may be stored for 6 months at -20°C or lower or they may be stored at 2-8°C for up to 14 days.
4. Universal negative control N°ADNC - 1 ml should be stored at 2-8°C upon receipt. Check label for specific expiration date.
5. Buffer pack N° PBS1 - Phosphate Buffered Saline is stable at room temperature storage to the date indicated on the label. The reconstituted buffer does not contain preservatives and should be stored at 2-8°C. Care should be taken to avoid contamination.
6. Mounting Medium N° TMM3 - 3 ml is stable when stored at 2-8°C. Check label for specific expiration date.

No : All kit components are available separately.

Additional Materials required but not provided

Test tubes and rack or microtiter system  
 Disposable pipettes  
 Staining dish and slide forceps  
 Moisture chamber  
 Distilled water  
 Fluorescence microscope  
 Paper towels

## REAGENT PREPARATION

Buffer pack :

Rehydrate buffer with 1 liter of sterile distilled water.

## SPECIMEN COLLECTION

Serological specimens should be collected under aseptic conditions. Hemolysis is avoided through prompt separation of the serum from the clot. Serum should be stored at 2-8°C if it is to be analyzed within a few days. Serum may be held for 3 to 6 months by storage at -20°C or lower. Lipemic and strongly hemolytic serum should be avoided. When specimens are shipped at ambient temperatures, addition of a preservative such as 0.095% sodium azide is strongly recommended.

## TEST INSTRUCTION

**Screening** : dilute test serums 1:4 in PBS

**Titration** : set up doubling dilutions of serum starting at 1:4, 1:8, 1:16, 1:32 etc.

1. Once slides reach room temperature tear slide envelope at notch. Carefully remove the slide and avoid touching the antigen areas. The slide is now ready to use.
2. Place a drop of diluted serum (20 to 30µl) and controls over the antigen wells.
3. Place slide with patient's serum and control in a moist chamber for 30 minutes at room temperature (approximately 24°C).
4. Remove slide from moisture chamber and tap the slide on its side to allow the serum to run off onto a piece of paper towel. Using a wash bottle, gently rinse remaining sera from slide being careful not to aim the rinse stream directly on to the well.
5. Wash in PBS for five minutes. Repeat using fresh PBS.

6. Place a blotter on the lab table with absorbent side up. Remove slide from PBS and invert so that tissue side faces absorbent side of blotter. Line up wells to blotter holes. Place slide on top of blotter. Do not allow tissue to dry. Wipe back of slide with dry lint free paper towel. Apply sufficient pressure to slide while wiping to absorb buffer.

7. Deliver 1 drop (25-30µl) of conjugate per antigen well. Repeat steps 3-6.

8. Place 4-5 drops of mounting medium on slide.

9. Apply a 22 x 70 mm coverslip. Examine the slide under a fluorescent microscope. Note : to maintain fluorescence, store mounted slide in a moisture chamber placed in a dark refrigerator.

#### RESULTS

A positive results is observed as a bright 3-4+ staining. This antibody is associated with Addison's disease and may be significant in the patient profile, as well as aid in the diagnosis and prognosis.

#### QUALITY CONTROL

1. Positive and negative serum controls must be included in each day's testing to confirm reproducibility, sensitivity and specificity of the test procedure.

2. The negative serum control should result in little (+) or no fluorescence. If this control shows bright fluorescence, either the control, antigen, conjugate or technique may be at fault.

3. The positive serum control should result in bright 3+ to 4+ fluorescence. If this control shows little or no fluorescence, either the control, antigen, conjugate or technique may be at fault.

4. In addition to positive and negative serum controls, a PBS control should be run to establish that the conjugate is free from nonspecific staining of the antigen substrate. If the antigen shows bright fluorescence in the PBS control repeat using fresh conjugate. If the antigen still fluoresces, either the conjugate or antigen may be at fault.

#### PRECAUTIONS

1. All human components have been tested for HBsAg and HTLVIII/LAV by an FDA approved method and found to be negative. Not repeatedly reactive. However, this does not assure the

absence of HBsAg or HTLVIII/LAV. All human components should be handled with appropriate care.

2. The sodium azide 0.095% included in the controls and conjugate is toxic if ingested.

3. Do not use components beyond their expiration date.

4. Follow the procedural instructions exactly as they appear in this insert to insure valid results.

5. For in vitro diagnostic use.

6. Handle slides by the edges since direct pressure on the antigen wells may damage the antigen.

7. Once the procedure has started do not allow the antigen in the wells to dry out. This may result in false negative test results, or unnecessary artifacts.

#### LIMITATIONS OF PROCEDURE

No diagnosis should be based upon a single serologic test result, since various host factors must be taken into consideration.

#### BIBLIOGRAPHY

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