

# Autoimmune Polyendocrinopathy

The term Autoimmune Polyendocrinopathy (also known as Schmidt's syndrome) refers to an autoimmune disease affecting multiple endocrine organs like pancreas, adrenal gland or thyroid gland.

## ADDISON'S DISEASE

Indirect immunofluorescence assay is the conventional method for the determination of anti-adrenal cortex antibodies (AACA).

The presence of cytoplasmic adrenal antibodies (AACA) is strongly indicative of Addison's disease, an uncommon disorder due to a deficiency of adrenocortical hormones. Almost all individuals with a primary amenorrhea and Addison's disease have detectable cytoplasmic adrenal antibodies. These autoantibodies are useful markers for the prediction of the development of Addison's disease. Results obtained in a comparative study do not show significant systematic differences compared to an anti-21 hydroxylase antibodies radioimmunoassay.

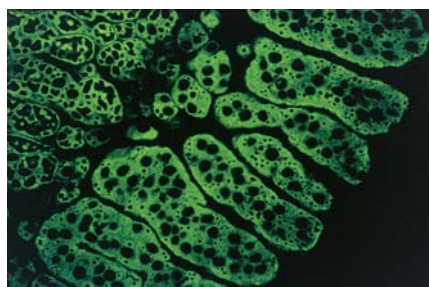
### ANTI-ADRENAL CORTEX ANTIBODIES (AACA)

**44574** IFA Slide Box, 12 slides x 4 wells  
Monkey Adrenal

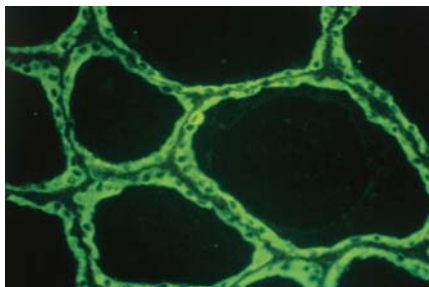
## AUTOIMMUNE THYROIDITIS

Antibodies to human thyroid peroxidase (Anti-TPO) are present typically in patients with Hashimoto's disease (90-100% of the patients), primary hypothyroidism or myxedema (80%), Grave's disease (50-80%), type I diabetes mellitus (40%) and pregnant women (14%). They are also detected, together with anti-Tg antibodies, in other diseases: endemic goiter, subacute thyroiditis, Addison's disease, polyendocrine autoimmuneopathies and in members of families prone to organ specific autoimmunity. Nevertheless, they can be also present in a 5-20% of healthy individuals.

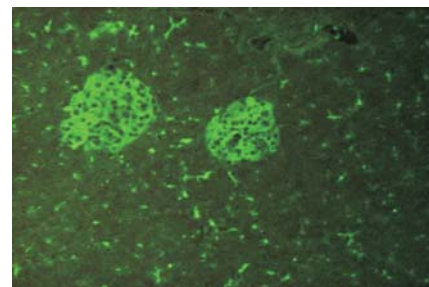
Anti Thyroglobulin (Anti-Tg) antibodies are present typically in patients with Hashimoto's disease (80-90% of the patients), primary myxedema (80%), Grave's disease (50-70%), type I diabetes mellitus (40%) and pregnant women (14%). Although elevated anti-Tg antibodies are common in differentiated cancer, but they have no clinical value. They are also detected, together with anti-TPO antibodies, in other diseases: endemic goitrous, subacute thyroiditis, Addison's disease, polyendocrine autoimmuneopathies and in members of families prone to organ specific autoimmunity. Nevertheless, they can be also present in a 5-20% of healthy individuals.



Anti-adrenal cortex antibodies  
Monkey adrenal cortex



Anti-thyroid peroxidase antibodies  
Monkey thyroid



Anti-islet cell antibodies  
Monkey pancreas

### ANTI-THYROID ANTIBODIES

**44550** IFA – Complete kit, 12 slides x 4 wells  
**44551** IFA – Slide Box, 12 slides x 4 wells  
Monkey Thyroid

### ANTI-THYROID PEROXIDASE ANTIBODIES (TPO)

**44795** ELISA kit, 96 T.  
Recombinant human antigen

### ANTI-THYROGLOBULIN ANTIBODIES (Tg)

**44796** ELISA kit, 96 T.  
Highly purified human antigen

## DIABETES MELLITUS

Indirect immunofluorescence assay is the conventional method for the determination of anti-islet cell antibodies (AICA). Islet cells antibodies (AICA) are strongly associated with insulin-dependent diabetes mellitus. Results obtained in a comparative study with anti-GAD and anti-IA2 antibodies detection tests showed a good concordance.

## INSULIN

Autoantibodies against insulin are present in patients with type I diabetes along with other autoantibodies (mainly, anti-glutamic acid decarboxylase 65, anti-tyrosine phosphatase IA 2 and cytoplasmic islet cell antibodies), but anti-insulin antibodies are usually the first to appear. Anti-insulin antibodies are detectable in 50-70% of children at the onset of type I diabetes and only 20-30% in older patients.

### ANTI-ISLET CELLS ANTIBODIES

**44609** IFA – Complete kit, 12 slides x 4 wells  
Controls not included  
**44572** IFA – Slide Box, 12 slides x 4 wells  
Monkey Pancreas

### ANTI-INSULIN ANTIBODIES

**44873** ELISA KIT 96 T  
Mixture of recombinant and purified insulin