

Anti-Phospholipid Syndrome

BlueDot APS

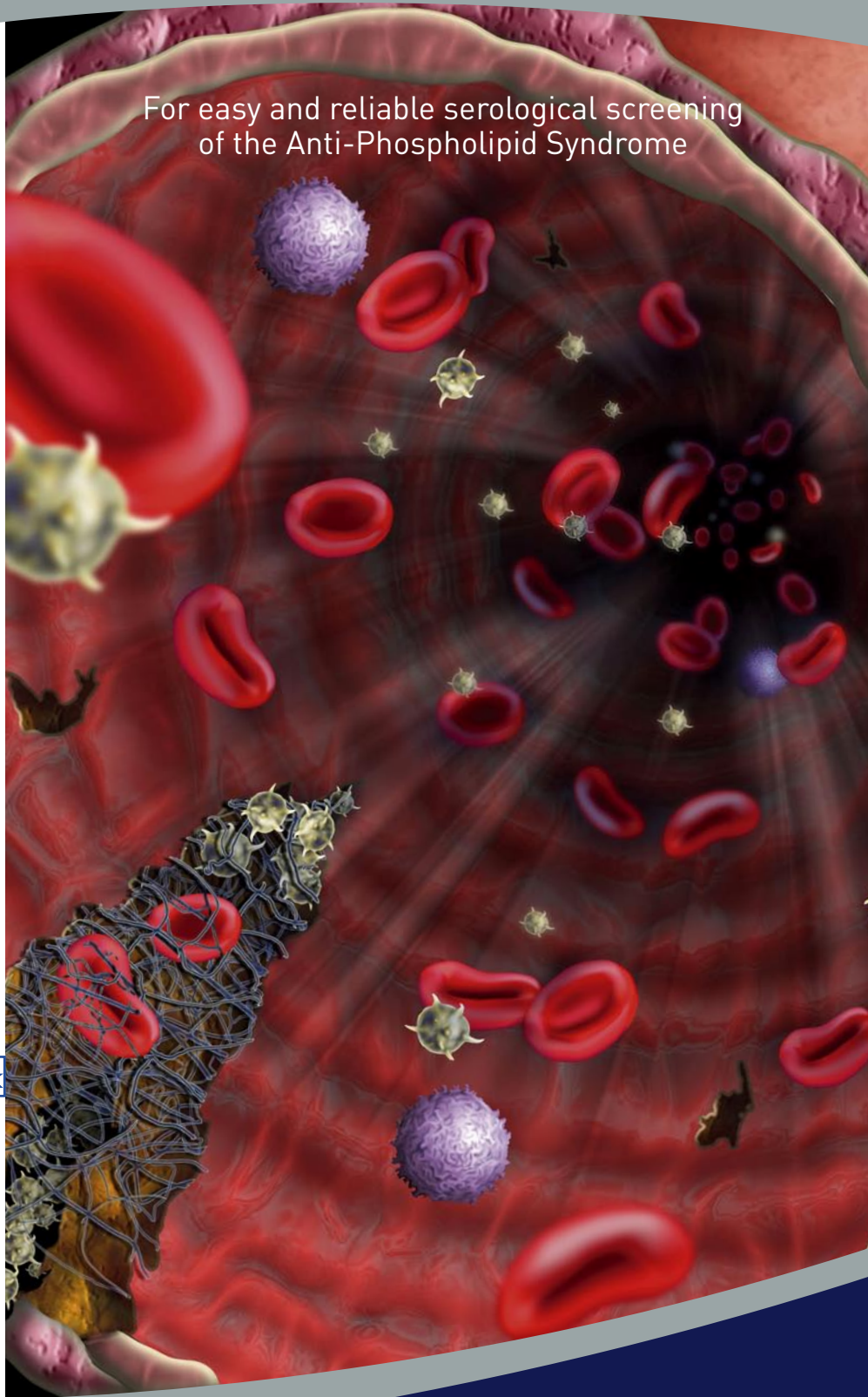
BlueDot kit
For the detection
of Human IgG
autoantibodies
against :

- Cardiolipin /
β2-GPI complex
- β2-GPI

BlueDot

Dtek

For easy and reliable serological screening
of the Anti-Phospholipid Syndrome



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The **Antiphospholipid syndrome (APS)** is a disorder of coagulation defined by the presence of **antiphospholipid antibodies** in patients with recurrent venous or arterial thrombosis, thrombocytopenia and pregnancy-related complications. APS can occur in patients without evidence of any definable associated disease or in association with SLE, another autoimmune disease. Traditionally, this has been referred to as **Primary APS** or **Secondary APS** respectively.

Etiology and Pathology

APS is an autoimmune disorder of unknown cause. The search for possible triggers has uncovered a wide array of associated autoimmune or rheumatic diseases, infections and drugs that are associated with antiphospholipid antibodies. These associations may ultimately provide a clue to the Etiology of APS.

Clinically, the series of events that lead to hypercoagulability and recurrent thrombosis can affect virtually any organ system. Particularly APS may contribute to an increased frequency of cerebrovascular accident or cardiac infarction, especially in younger individuals. Recurrent pulmonary embolism or thrombosis can lead to life-threatening pulmonary hypertension. Late spontaneous foetal loss (second or third trimester) is common, however it can occur at any time during pregnancy.

In general, treatment regimens for APS must be individualised according to the patient's clinical status and history of thrombotic events. Therapeutic agents are based on anticoagulant properties and benefits are weighed carefully against their significant risk.

Diagnosis

A hallmark result from laboratory tests that defines APS is the presence of anti-phospholipid antibodies.

Anti-phospholipid (PL) antibodies represent a very heterogeneous family of autoantibodies whose specificity depends on the target antigen structure.

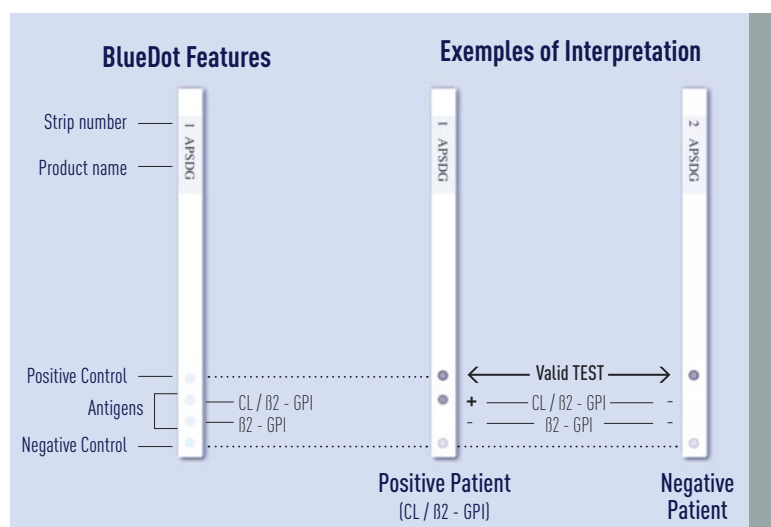
Sensu stricto, anti-PL bind to anionic phospholipids, especially Cardiolipin, independently of the presence of any cofactor, in Elisa tests.

Anti-Cardiolipin (CL) antibodies, cofactor independent, are detectable in most patients with typical symptoms of APS but are not specifically associated with the clinical picture of the syndrome as they are also present in various infectious diseases (e.g syphilis).

In the course of numerous clinical trials, investigators found that the detection of anti-CL antibodies was enhanced by β_2 -Glycoprotein I (β_2 -GPI), a cofactor that has binding affinities for phospholipids. The complex CL / β_2 -GPI induces a conformational change in the β_2 -GPI and the expression of a cryptic epitope responsible for aPL binding.

These **Anti- CL / β_2 -GPI antibodies** are associated with the well-known thrombotic events in APS and are specific for the syndrome.

Anti- β_2 -GPI antibodies exclusively directed against β_2 -GPI in the absence of CL have also been reported. It is believed that, by binding on the test support (polystyrene plates or membrane), the β_2 -GPI undergoes a similar conformational change that leads to the expression of a neoepitope. However, it has been demonstrated that the antibodies directed against the β_2 -GPI / Cardiolipin complex are not identical to β_2 -GPI antibodies.



BlueDot APS

BlueDot APS allows to screen serologically for the anti-Phospholipid Syndrome.

It offers easy handling and cost effectiveness for the reliable detection of antibodies against Cardiolipin / β_2 -GPI complex as well as β_2 -GPI alone.

Available products and codes

| Code | product | interpretation | number of tests |
|----------|-------------|----------------|-----------------|
| APSDG-24 | BlueDot APS | Qualitative | 24 tests |