ANTIBODIES ONLINE

Datasheet for ABIN996880
beta2-GP1 Ab IgA ELISA Kit

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Overview

Quantity:	96 tests
Target:	beta2-GP1 Ab IgA
Reactivity:	Human
Method Type:	Competition ELISA
Application:	ELISA

Product Details

Purpose:	ß2GP1 IgA Enzyme-linked Immunosorbent Assay (ELISA) is intended for the detection and semiquantitative determination of IgA antibodies to ß2GP1 in human sera or plasma.
Analytical Method:	Semi-Quantitative
Detection Method:	Colorimetric
Specificity:	98 %

Target Details

Target:	beta2-GP1 Ab IgA
Abstract:	beta2-GP1 Ab IgA Products
Target Type:	Antibody
Background:	Cardiolipin autoantibodies (ACA) are described for various autoimmune diseases. The presence of anti-cardiolipin antibodies in systemic lupus erythematosus (SLE) can be related to the development of thrombocytopenia, in gynaecology they are supposed to cause intrauterine death or recurrent abortion. Furthermore, anti-cardiolipin antibodies have been found in some

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Target Details

non-thrombotic neurological disorders like cerebrovascular insufficiency, cerebral ischemia or chorea and in myocardial infarction.
Recent studies have shown that a 50kD serum cofactor is required for anticardiolipin antibodies, to bind to cardiolipin which has been coated onto plastic plates. The cofactor has been identified as beta 2 -glycoprotein 1 also termed apolipoprotein H. beta 2 GP1 has been known as an in vitro inhibitor of the intrinsic blood coagulation pathway, ADP-dependent aggregation, and prothrombinase activity of activated platelets. It has become apparent that anticardiolipin antibody from patients with anti-phospholipid syndrome (APS) recognize a modified beta 2 GP1 structure and not cardiolipin, native beta 2 GP1 or an epitope structurally defined by both cardiolipin and beta 2 GP1.

Galli et al. and Viard, et al. reported that anti-cardiolipin antibody derived from SLE and APS were directed to the beta 2 GP1 molecule coated on polystyrene plates. Koike and Matsuura showed conclusively that beta 2 GP1 is indeed the antigen to which many anticardiolipin antibody patients are actually binding and furthermore showed that the phospholipid merely serves to link the beta 2 GP1 to the solid phase. beta 2 GP1 autoantibodies are found in the immunoglobulin classes IgG, IgM and IgA. The determination of IgM antibodies is a valuable indicator in the diagnosis of beginning autoimmune disease, whereas IgG and/or IgA antibodies will be found in progressive stages of manifested autoimmune disorders. IgA antibodies are often associated with IgG antibodies. The determination of IgA antibodies seems to have a greater validity in thrombosis and fetal loss. Indications for determination of anti beta 2 GP1 antibodies are: SLE, Thrombosis, Thrombocytopenia, Cerebral Ischemia, Chorea, Epilepsy, Recurrent Abortion and Intrauterine Death.

Application Details

Comment:

Quality Control:
The negative control and positive control should be run with every batch of samples tested and the concentration must be within the range stated on its label. The O.D. value of calibrator 0 SAU must be lower than 0.150 and the O.D. value of calibrator 160 SAU must be greater than 0.750. Additional controls may be prepared from human serum specimens and kept under -20 °C.
Limitations of procedure:
1. Diagnosis cannot be made on the basis of anti beta2 GP1 results alone. These results must be used in conjunction with information from clinical evaluation and other diagnostic procedure.

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	2. The clinical significance of beta2 GP1 antibodies in diseases other than SLE is currently under investigation. 3. When negative anti beta2 GP1 titers are found in the presence of clinical indications, a lupus anticoagulant, anti-cardiolipin or other additional testing is indicated. 4. It is to be expected that some samples can be anti-cardiolipin positive yet anti beta2 GP1 negative. The anti beta2 GP1 test is a more specific marker of thrombotic risk. The anticardiolipin test can produce false positive results due to cross-reactivity with dsDNA or certain infectious disease antibodies.
Sample Volume:	5 μL
Assay Time:	1 - 2 h
Plate:	Pre-coated
Reagent Preparation:	1. Prepare 1x washing buffer. Prepare washing buffer by adding distilled or deionized water to 20x wash concentrate to make a final volume of 1 L. 2. Bring all specimens and kit reagents to room temperature (20- 25 °C) and gently mix.
Sample Preparation:	1. Collect blood specimens and separate the serum. 2. Specimens may be refrigerated at 2-8 °C for up to seven days or frozen for up to six months. Avoid repetitive freezing and thawing of serum sample.
Assay Procedure:	1. Place the desired number of coated strips into the holder. Moderate positive: 40 - 70 SAU PRE-WASH Coated Wells - Repeat washing three times with washing buffer. High positive: > 70 SAU Prepare 1:101 dilution of test samples by adding 5 μL of the sample to 500 μL of Sample Diluent. Mix well. Do not dilute 1:101 prediluted Calibrators & Controls. A positive result suggests the possibility of certain autoimmune disease thrombolic disorders. A negative result indicates no beta2 GP1 IgA antibody or levels below the detection limit of the assay. Dispense 100 μL of diluted sera and prediluted calibrators & controls into the appropriate wells. Tap the holder to remove air bubbles from the liquid and mix well. Incubate for 30 minutes at room temperature. Remove liquid from all wells. Repeat washing three times with washing buffer. Dispense 100 μL of enzyme conjugate to each well and incubate for 30 minutes at room temperature. Remove enzyme conjugate from all wells. Repeat washing three times with washing buffer. Dispense 100 μL of TMB Chromogenic Substrate into each well and incubate for 15 minutes at room temperature. Add 100 μL of Stop solution to stop reaction.
Calculation of Results:	1. Construct a standard curve by plotting O.D. 450 nm on the y-axis against the concentration of

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Application Details

	calibrator APL values on the x-axis on a log-log graph paper or log-lin graph. 2. Using the O.D. value of each specimen, determine the concentration from the standard curve. 3. A typical example: Each laboratory is recommended to establish it own normal range based upon its own techniques, controls, equipments and patient population according to their own established procedures. The followings are a suggestive guideline. Negative: < 20 SAU Low positive: 20 - 40 SAU INTERFERENCE AND CROSS-REACTIVITY 3 4 5 6 7 8 9 10.
Assay Precision:	Intra-assay in Mean SAU SD % CV Serum A 8 14.9 0.35 2.38 Serum B 8 30.8 1.39 4.52 Serum C 8 58.9 0.99 1.68 2 Inter-assay in Mean SAU SD % CV Serum A 8 15.6 0.38 2.4 Serum B 8 31.2 1.42 4.55 Serum C 8 59.3 1.05 1.77
Restrictions:	For Research Use only

Handling

Storage:	4 °C
Expiry Date:	12 months

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