ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Antibody to Human D-dimer (Fibrin Degradation Product)

Cat # DDR12-M Mouse Monoclonal Anti- Human D-dimer IgG, aff pure **SIZE**: 100 ug

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Fibrin degradation products (FDPs) are formed whenever fibrin is broken down by enzymes (e.g., plasmin). Determining FDPs is not considered useful, as this does not indicate whether the fibrin is part of a blood clot (or being generated as part of inflammation). Human D-dimer (DD), a specific degradation product of cross-linked fibrin, is released into the bloodstream during clot breakdown. D-dimers are unique in that they are the breakdown products of a fibrin mesh that has been stabilized by Factor XIII. This factor crosslinks the E-element to two D-elements. This is the final step in the generation of a thrombus.

Plasmin is a fibrinolytic enzyme that organizes clots and breaks down the fibrin mesh. It cannot, however, break down the bonds between one E and two D units. The protein fragment thus left over is a D-dimer. D-dimer assays rely on monoclonal antibodies to bind to this specific protein fragment. The first patented MoAb of the kind was D Dimer-3B6/22, although others have been developed. D-dimer concentration may be determined by a blood test to help diagnose thrombosis. Since its introduction in the 1990s, it has become an important test performed in patients suspected of thrombotic disorders. While a negative result practically rules out thrombosis, a positive result can indicate thrombosis but does not rule out other potential causes. Its main use, therefore, is to exclude thromboembolic disease where the probability is low.

Source of Antigen and Antibodies

Antigen: Homogenized fibrin clot, D-dimer or high molecular weight fibrin degradation products

Antibody Host: Mouse

Antibody Type: Monoclonal

Isotype: IgG3

Buffer: Citrate-NaCl, pH 6.0, 0.05% azide

Concn: Lot sp. concn provided on the vial

Recommended Secondary Antibodies: **Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available).

Form & Storage

Purified IgG

100ul

solution lyophilized powder

Buffer: Citrate-NaCl, pH 6.00.05% sodium azide

Reconstitute powder 100 ul of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Specificity and crossreactivity

Anti-D Dimer Mab #DDR12-M recognizes human D-Dimer. Recognizes high molecular weight fibrin degradation products. Recognizes D-dimer in Western blot under non-reducing conditions. Interacts with beta-chain of D-dimer in Western blot under reducing conditions. Does not cross-react with fibrinogen and D-monomer. Antibody crossreactivity with D-dimer from other species (mouse, rat etc) have not been studies.

Recommended Usage

ELISA

Suitable for coating or tracer. Pairs with #DDR11-M.

Western Blotting (1:1K-5K) using Chemiluminescence substrates.

Histochemistry & Immunofluorescence: not tested..

*This product is for In vitro research use only.

Related material available from ADI

DDR12-M 110530A

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