

**Product Name**

Monoclonal Mouse  
Anti- deiminated mouse Fibrinogen Immunoglobulin, clone 20B2


**CAT No.**

MQ13.102-100

**Size**

100 µg

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**Intended use**

This product is for research use only. NOT for use in diagnostic or therapeutic procedures.

Mouse monoclonal, clone 20B2, to deiminated mouse fibrinogen is intended for use in ELISA immunoblotting.

**Reagent provided**

The antibody has been lyophilized in a 10 mM ammonium bicarbonate buffer.

**Isotype**

IgG1

**Immunogen**

Deiminated mouse fibrinogen peptide.

**Specificity**

Specificity has been tested in ELISA (figure 1) and immunoblotting (figure 2).

Crossreacts with deiminated human fibrinogen.

**Purity**

Protein A purified.

**Precautions**

1. For professional users.
2. As with any product derived from biological sources, proper handling procedures should be used.
3. The Product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the test system applied.

**Preparation of the antibody**

Dissolve the antibody in a 100 mM Tris-HCl pH8.0 buffer, containing 0.05% sodium azide (NaN<sub>3</sub>).

Recommended antibody concentration: 0.5 mg/ml.

**NOTE:** Be careful opening the vial since the antibody resides in a vacuum.

**Storage instructions**

Dissolve the antibody in and store at 2-8°C.

**Dilution guidelines**

Immunoblotting: 1:(500 x F) – (1000 x F)

ELISA: 1:(4000 x F) – 1:(8000 x F)

Other applications: since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.

For the value of the multiplication factor F, see label on vial.

Unless the stability in the actual test system has been established, it is recommended to dilute the product immediately before use.

**Relevance**

Fibrinogen is a protein produced by the liver which helps stop bleeding by helping blood clots to form.

Fibrinogen gets deiminated (conversion from arginin to citrullin) by Peptidyl Arginine Deiminase (PAD) in inflamed joints in patients that develop rheumatoid arthritis.

Citrulline is a post-trasnlational modification of an arginine residue by PAD enzymes. Proteins that normally contain citrulline residues include myelin basic protein (MBP), filaggrin, and several histone proteins, while other proteins, like fibrin and vimentin can get deiminated during cell death and tissue inflammation.

Patients with rheumatoid arthritis often (at least 80% of them) develop an immune response against proteins containing citrulline. Although the origin of this immune response is not known, detection of antibodies reactive with citrulline containing proteins or peptides is now becoming an important help in the diagnosis of rheumatoid arthritis.

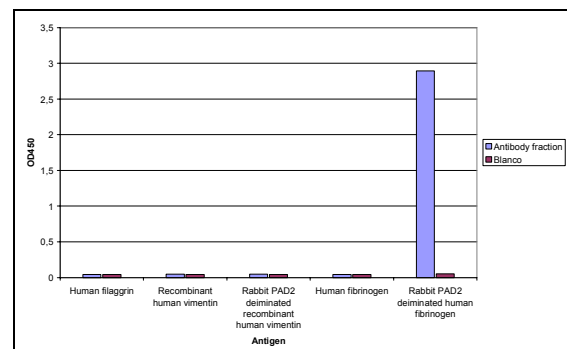


Figure 1: Specificity of anti-citrulline Immunoglobulin, clone 20B2, determined by ELISA. Antibody fraction (0.5 mg/ml) 8000X diluted in MPBST. Antibody was tested on human filaggrin (isolated from skin tissue), both rabbit PAD2 (sigma; cat no P4874) deiminated as non deiminated human fibrinogen (Sigma; cat no F4883) and rabbit PAD2 deiminated as non deiminated human recombinant vimentin (RDI; cat no RDI-PRO62015).

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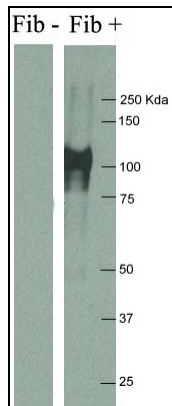


Figure 2: Immunoblot, loaded with human fibrinogen (Sigma; cat no F4883) in the left lane and rabbit PAD2 (sigma; cat no P4874) deiminated fibrinogen in the right lane. The blot has been incubated with MQR1.101 antibodies 1000X diluted from a 0.5 mg/ml stock solution in MPBST (137 mM NaCl, 2.7 mM KCl, 1.5 mM  $\text{KH}_2\text{PO}_4$ , 8.1 mM  $\text{Na}_2\text{HPO}_4$ , 0.05% v/v Tween-20 (Merck), 5% w/v Non Fat Dry Milk (ELK)).