Product Name
Monoclonal Mouse
Anti-Citrullinated Fibrinogen
Immunoglobulin

CAT No.
MQR 1.101-100

LOT No.
18157

Quantity
100 µg

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Intended use
This product is for research use only. NOT for use in diagnostic or therapeutic procedures.
A license from ImmunoPrecise is required for use outside the research field.
This product is tested for use in enzyme-linked immunosorbent assay (ELISA), immunoblotting (IB), immunoprecipitation (IP) or immunohistochemistry (IHC).

Reagent provided
The antibody is supplied in PBS

Isotype
Mouse IgG2a, κ

Specificity
Specificity has been tested in ELISA. Additional tests for cross reactivity have not yet been performed.

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 applied test system.

Preparation of the antibody
Use antibody as supplied.

Storage instructions
Store at -80°C.

Dilution guidelines
ELISA: 50 – 500 ng/µl.

Other applications: since applications vary, optimum working dilution of the product should be determined in the appropriate assay. Unless the stability in the actual test system has been established, it is recommended to dilute the product immediately before use.

Relevance
Citrulline, while being an amino acid, is not built into proteins during protein synthesis, as it is not coded for by DNA, yet several proteins are known to contain citrulline. These citrulline residues are generated by a family of enzymes called peptidylarginine deiminases (PADs), which convert arginine into citrulline in a process called citrullination or deimination. 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 citrullinated 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.

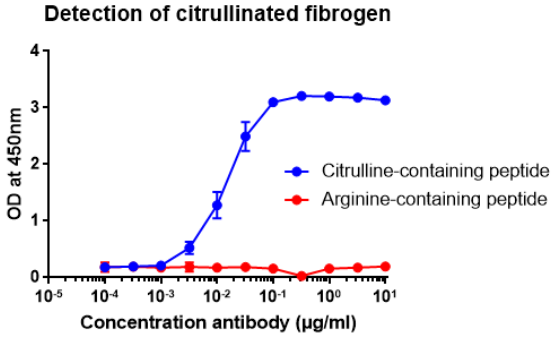

Figure 1: Specificity of Anti-Citrullinated Fibrinogen Immunoglobulin (MQR1.101), determined by ELISA. Antibody diluted in PBS containing 0.05% tween-20 and 1% BSA was tested on a citrulline-containing peptide and an arginine-containing peptide.

References
1. Venrooij et al. Autoantibodies to citrullinated antigens in (early) rheumatoid arthritis. Autoimmun Rev. 2006 Nov;6(1):37-41.