

Product Name
 Monoclonal Human Anti-Citrullinated
 Fibrinogen Immunoglobulin, Clone 1F11

CAT No.
 MQR2.101-100

LOT No.
 14107

Size
 96 well test
 Edition: January 24, 2020

Intended use

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

A license from ImmunoPrecise Antibodies (Europe) B.V. 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 has been lyophilized in a 10 mM ammonium bicarbonate buffer.

Isotype

Human IgG1, λ

Specificity

Specificity has been tested in immunoblotting (figure 1) and 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

- Recommended antibody concentration: 0.5 mg/ml
- Recommended solvent; PBS or 100mM Tris-HCl, pH 7.0
- Additional sodium azide (up to 0.05%) is recommended for long term storage.
- For a 0.5 mg/ml antibody concentration, dissolve in 200 μ l buffer.

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

Storage instructions

For long term storage keep lyophilized batch at -20°C
 After dissolving store at 2-8°C. For prolonged storage add sodium azide to 0.05%.

Dilution guidelines

ELISA: 1:200 – 1000.

Immunoblotting: 1:200 – 1000.

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

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](#).

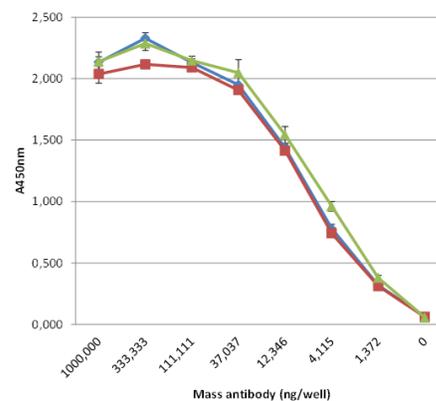


Figure 1: Specificity of Anti-Citrullinated Fibrinogen Immunoglobulin (MQR2.101), determined by ELISA. Antibody diluted in PBS containing 0.05% tween-20 and 1% BSA was tested on a citrulline-containing peptide and an arginine-containing peptide. Red and blue lines represent a duplicate of MQR2.101 – 14107, whereas the green line represents a reference batch.

References

1. Venrooij et al. Autoantibodies to citrullinated antigens in (early) rheumatoid arthritis. Autoimmun Rev. 2006 Nov;6(1):37-41. Epub 2006 Apr 19.