

## Product Name

Monoclonal Human Anti-Modified Citrulline (AMC),  
Immunoglobulin, clone C4S

**ModiQUEST**  
RESEARCH

## CAT No.

MQR2.602-100

POSTAL ADDRESS Pivot Park  
Industrielaan 63  
5349 AE Oss  
The Netherlands

## LOT No.

14119

TELEPHONE +31 (0) 412 846 000  
FAX +31 (0) 412 846 009

## Size

100 µg

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Edition: June 19, 2014

## Intended use

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

This product is tested for use in enzyme-linked immunosorbent assay (ELISA) and Western Blot (WB).

## Reagent provided

The antibody has been lyophilized in a 10 mM ammonium bicarbonate buffer. Each vial contains 2 mg BSA.

## Isotype

Human IgG1, κ

## Immunogen

Citrulline-containing peptide modified with 2,3-butanedione monoxime and antipyrine.

## Specificity

Specificity has been tested in ELISA (figure 1) and WB (figure 2). Recognizes citrulline-containing proteins modified with 2,3-butanedione monoxime and antipyrine regardless of neighbouring amino acid sequences.

## 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 (when dissolved at 0.5 mg/ml, the BSA concentration will be 1%)
- Recommended solvent; 100 mM PBS or Tris-HCl, pH 7.0
- Additional sodium azide (up to 0.05%) is recommended for prolonged storage
- For a 0.5 mg/ml antibody concentration in 1% BSA, dissolve in 200 µl 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%

## Application guidelines

ELISA: 0.08 – 0.4 µg/ml

WB: 1 µg/ml

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

## Relevance

This antibody is developed for the detection of citrulline containing proteins. The amino acid citrulline is generated by posttranslational modification of arginine by peptidylarginine-deiminases (PADs; MQ16.201 and MQ16.203). Antibodies directed to citrulline containing proteins (e.g. histones) are detected in rheumatoid arthritis patients.

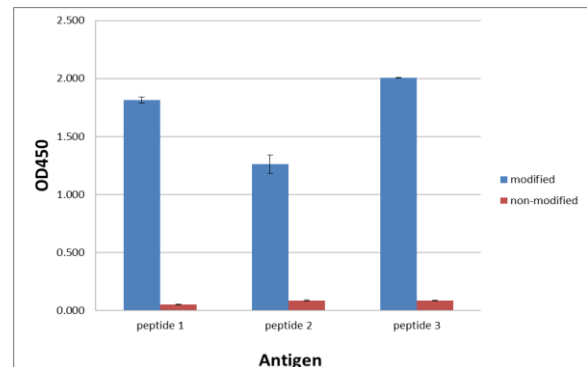


Figure 1: Specificity of AMC Immunoglobulin (MQR2.602), determined by ELISA. Antibody diluted to 0.4 µg/ml in PBS containing 0.05% tween-20 and 1% BSA was tested on various modified citrulline-containing peptides and their non-modified forms.

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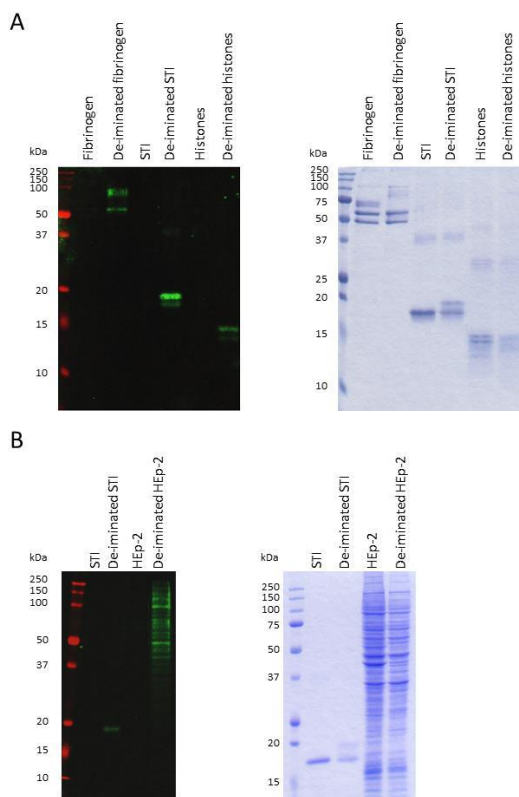


Figure 2: Specificity of AMC Immunoglobulin (1 µg/ml, diluted in PBS containing 0.05% tween-20 and 5% milk powder), was determined by WB.

A) After blotting, the proteins on the membrane (fibrinogen, soybean trypsin inhibitor (STI), histones and their de-aminated forms) were chemically modified with 2,3-butanedione monoxime and antipyrine. Subsequently, the membrane was probed with AMC antibody. The right panel shows the corresponding SDS-PAGE gel stained with coomassie.

B) AMC antibody was tested on 10 µg HEP-2 cell lysate and 10 µg of its de-aminated form after chemical modification of the proteins on the membrane with 2,3-butanedione monoxime and antipyrine (left panel). As control (de-aminated) STI was loaded. The right panel shows the corresponding SDS-PAGE gel stained with coomassie.