



# anti-MAG Autoantibodies ELISA

Procedure

EK-MAG-U

## Pre-Analytics

Specimen: Serum

Specimen storage: Serum samples are stable for  $\geq 1$  year if stored at  $\leq -20^{\circ}\text{C}$ .

Freeze/thaw-cycles: Not recommended

## Critical Steps

### Samples and sample preparation

Samples: Samples must not be hemolytic, lipemic or icteric

Sample preparation: Dilute samples - let set for 1 hour at  $18-28^{\circ}\text{C}$  - put for 10 minutes on ice prior to pipetting.

### ELISA

Reagents: All reagents but TMB (substrate) must be used refrigerated.

Washing steps: Wash plate 4 x with refrigerated wash buffer prior to using it - empty wells completely.

Use „plate mode“ (serial dispensing followed by serial „aspiration“) for automated washing.

Incubations: Both, first and second incubation have to be performed at  $2-8^{\circ}\text{C}$ .

Incubation with TMB substrate has to be performed on a plate rotator at RT ( $18-28^{\circ}\text{C}$ ).

## Sample Preparation

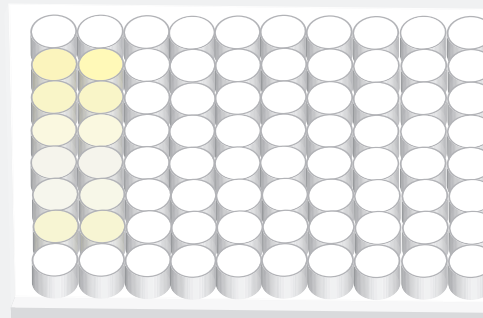
Dilute samples 1:1000 with incubation buffer.

Allow samples to set for 1 hour at  $18-28^{\circ}\text{C}$ , vortex from time to time.

Put samples for 10 minutes on ice prior to pipetting.

## Microtiter Plate Set-up\*

BLANK (IB)  
CAL A  
CAL B  
CAL C  
CAL D  
Con L  
Con H



\*always perform ELISA measurements in duplicate

## ELISA

All reagents but TMB (substrate) must be used refrigerated

### Precoated Microtiter Plate

↓ wash 4 x

add 100  $\mu\text{l}$  of Controls and diluted Samples (1:1000)

2 h ↓ incubate 2 hrs ( $\pm 5$  min) at  $2-8^{\circ}\text{C}$   
↓ wash 4 x

add 100  $\mu\text{l}$  of Enzyme Label

2 h ↓ incubate 2 hrs ( $\pm 5$  min) at  $2-8^{\circ}\text{C}$   
↓ wash 4 x

add 100  $\mu\text{l}$  of TMB Substrate

30' ↓ incubate 30 ( $\pm 5$  min) at  $18-28^{\circ}\text{C}$  on a plate rotator  
add 100  $\mu\text{l}$  of Stop Solution

4.5 h → read at 450 nm (within 30 min)

Time to Result: ~5 h

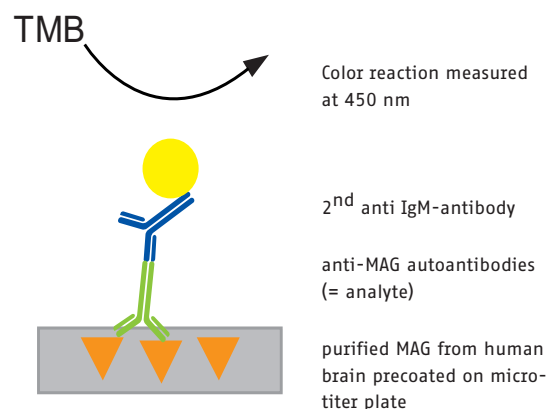
# anti-MAG Autoantibodies ELISA

Characteristics EK-MAG-U

## Intended Use

The anti-MAG Autoantibodies ELISA is intended for the quantitative determination of human IgM autoantibodies directed against Myelin Associated Glycoprotein (=MAG).

## Assay Principle



## Kit Formats

| Code   | Enzyme label | Wells  |
|--------|--------------|--------|
| EK-MAG | IgM          | 1 x 96 |

## Number of Tests in different Runs

| Number of Runs | Number of Tests |
|----------------|-----------------|
| 1              | 41              |
| 2              | 34              |
| 3              | 27              |
| 4              | 20              |

## Assay Performance Data

**Intra-assay precision** 6.5 %

The intra-assay precision was calculated from the results of n = 20 pairs of values obtained in a single run (CV range: 2.1 - 10.3%).

**Inter-assay precision** 15.4 %

The inter-assay precision was calculated from the results of n = 20 results of pairs of values obtained in 20 different runs.

**Dilution Linearity / Parallelism** 147%

Human serum samples with high titers of anti-MAG autoantibodies were diluted from 1:1000 to 1:64000. It is suggested that the relatively high deviation in about 50% of samples is due to antibody aggregation.

## Example of Results

| EK-MAG (IgM) | absorbance (mean OD450) | BTU   | % CV |
|--------------|-------------------------|-------|------|
| Blank        | 0.048                   |       |      |
| CAL A        | 2.191                   | 70000 | 0.2  |
| CAL B        | 1.258                   | 15000 | 1.5  |
| CAL C        | 0.408                   | 3000  | 2.9  |
| CAL D        | 0.134                   | 1000  | 1.5  |
| CRTL LOW     | 0.368                   | 2666  | 3.1  |
| CRTL HIGH    | 1.389                   | 18261 | 0.6  |

## Results

The absorbance measured is proportional to the titer of anti-MAG autoantibodies present in a given sample. The titers of the quantitative anti-MAG Autoantibodies ELISA are expressed as BÜHLMANN Titer Units (BTU).

## Standardization

The calibrators of the BÜHLMANN anti-MAG Autoantibodies ELISA kit were calibrated against an internal reference consisting of more than 10 human sera with low to high titers of anti-MAG antibodies.

**Ordering code:**  
EK-MAG-U 96 tests (IgM)

BÜHLMANN anti-MAG Autoantibodies ELISA is available for Research Use Only in the US. Not for use in diagnostic procedures.



BÜHLMANN Laboratories AG  
Switzerland  
info@buhlmannlabs.ch  
www.buhlmannlabs.ch  
Phone +41 61 487 12 12

BÜHLMANN Diagnostics Corp  
USA / Canada  
info@buhlmannlabs.com  
www.buhlmannlabs.com  
Phone 844 300 9799