



# MRP8/14 ELISA

Procedure

EK-MRP8/14

A Commitment to Diagnostics

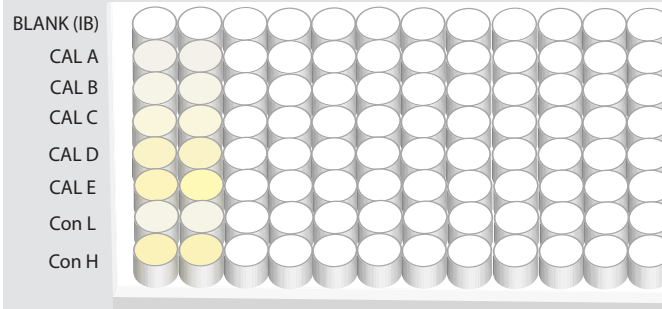
## Pre-Analytics

- Samples required <50 µl serum or plasma
- Important: Serum MRP8/14 values are significantly higher than plasma values (see normal values next side). Therefore values from plasma and serum are not directly comparable.
- Sample storage at 2-8°C up to 30 days  
at -20°C at least 6 months

## Important Points

- A minimal incubation time of at least 20 seconds of the wash buffer in the wells must be ensured each time to ensure reproducibility of the results.
- By using automated plate washer: use the so-called "plate mode"
- The indicated repetitions of the washing are mandatory.
- Important: Standard sample dilution (1:100) has already been considered into the calibrators!

## Pipetting Scheme



## Sample Dilution

Human serum and plasma samples must be diluted with incubation buffer.

|        |       |
|--------|-------|
| Serum  | 1:100 |
| Plasma | 1:100 |

(e.g. 10 µl serum and 990 µl Incubation Buffer)

## ELISA

All reagents must be adjusted to room temperature

### Precoated Microtiter Plate

↓ ↻ wash 2x

### 100 µl Calibrators, Controls or diluted Samples (1:100)

30' ↓ ↻ incubate 30 min at 18-28°C on a plate rotator  
wash 3 x

### add 100 µl Enzyme Label

30' ↓ ↻ incubate 30 min at 18-28°C on a plate rotator  
wash 5 x

### add 100 µl TMB Substrate

15' ↓ ↻ incubate 15 min at 18-28°C on a plate rotator

### add 100 µl Stop Solution

→ Read at 450 nm

75'

Time to Result: 75 minutes





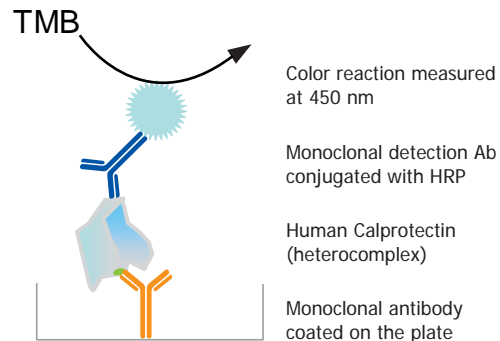
# MRP8/14 ELISA

Characteristics EK-MRP8/14

A Commitment to Diagnostics

## Intended Use

Quantitative *in vitro* determination of human myeloid-related protein MRP8/14 (S100A9/S100A8, Calprotectin) in serum or plasma samples by a sandwich immunoassay.



## Number of Tests

- 96 Well microtiter plate
- 40 Patient samples\*
- 1 Blank\* (Incubation buffer)
- 5 Calibrators\* (0.4-24.0 µg/ml)
- 2 Controls\* (low ~1.6 µg/ml) (high ~6 µg/ml)

\*in duplicates

## Assay Performance Data

**Intra-assay precision** 4.3 %  
n=7; range: 0.2-21.6 µg/ml  
20 duplicates; CV range: 2.4-7.4 %

**Inter-assay precision** 5.8 %  
n=4; range: 0.9-12.1 µg/ml  
20 repetitions; CV range: 4.7-7.4 %

**Dilution linearity** 98 %  
4 samples diluted 1:100 up to 1:3200  
recovery range: 85-110 %

**Spiking recovery** 101 %  
4 samples spiked with native MRP8/14 from human serum. recovery range: 86-114 %

**Analytical sensitivity** << 0.4 µg/ml  
n=20, incubation buffer measured in duplicates; mean+2 SD

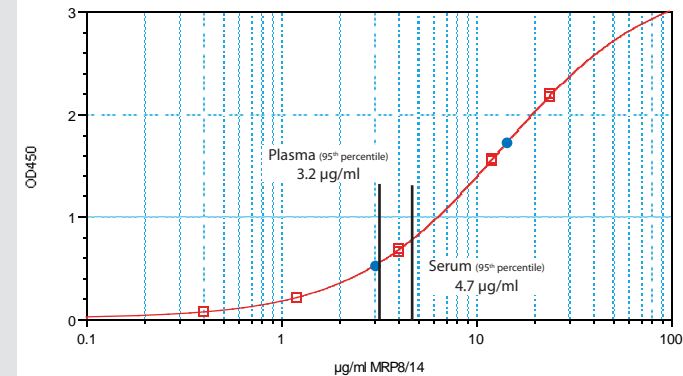
**Functional sensitivity** < 0.4 µg/ml  
n=8; range: 0.2-39.8 µg/ml  
20 duplicates; limit of acceptance 10 %CV  
The resulting precision profile allows the precise measurement within the entire standard range from 0.4 - 24.0 µg/ml.

## Normal values

Serum (n=70) and plasma (30) samples from apparently healthy donors were tested according to the assay procedure.

|        |                             |           |
|--------|-----------------------------|-----------|
| Serum  | Median                      | 1.2 µg/ml |
|        | 95 <sup>th</sup> percentile | 4.7 µg/ml |
| Plasma | Median                      | 0.8 µg/ml |
|        | 95 <sup>th</sup> percentile | 3.2 µg/ml |

## Typical Standard Curve (4 Parameter Logistics)



Ordering code:

EK-MRP8/14 96 wells



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