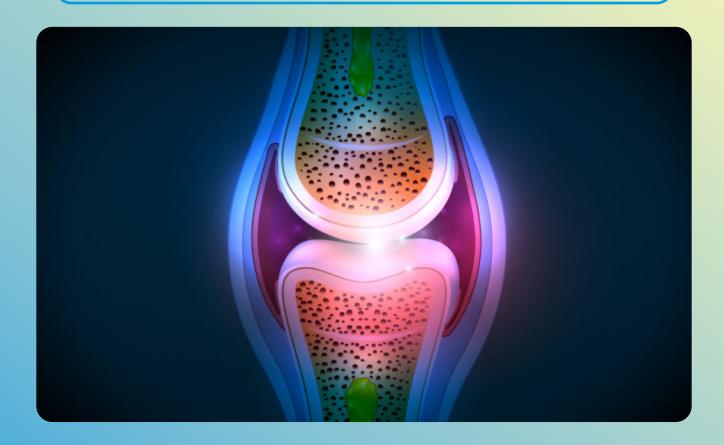
IDK® Calprotectin (MRP8/14) Serum ELISA



ELISA for the determination of Calprotectin (MRP8/14) in serum and plasma.

- Directly reflects synovial inflammation
- More sensitive detection than ESR or CRP
- Results in 1 hour



Calprotectin (MRP8/14)

A Biomarker to Identify and Monitor Inflammatory Disease Activity

Calprotectin is a calcium-binding protein secreted predominantly by neutrophils and monocytes. The heterocomplex consists of the two proteins, S100A8 (calgranulin A) and S100A9 (calgranulin B), also designated as MRP8 and MRP14, respectively. Expression of S100A8 and S100A9 in epithelial tissues was first described in context with squamous epithelia and with murine and human wound repair. More recently, an association of S100 protein expression with adenocarcinomas in humans has emerged. The genes S100A8 and S100A9 are located in a gene cluster on chromosome 1q21, a region where over-expression has been observed during tumor development. The clinical symptoms are versatile and can affect the gastrointestinal tract, joints, reproductive organs, skin, respiratory system, and brain.

The detection of calprotectin in inflammatory diseases is a valuable tool for assessing and monitoring inflammation due to its high sensitivity and specificity. Calprotectin is released by activated neutrophils and monocytes during the inflammatory response. Its presence in serum serves as an indicator of inflammation, making it an essential biomarker for conditions such as rheumatoid arthritis, inflammatory bowel disease (IBD), and systemic lupus erythematosus (SLE). By measuring calprotectin levels, inflammatory and non-inflammatory conditions may be differentiated.

In addition to its role in assessing inflammation, calprotectin detection plays a crucial role in monitoring disease activity and treatment efficacy in individuals with chronic inflammatory conditions. Regular measurement of calprotectin levels helps track the progression of diseases like IBD and rheumatoid arthritis, providing insights into the effectiveness of therapeutic interventions. Elevated calprotectin levels can signal an impending disease flare, allowing for timely adjustments in treatment to prevent severe exacerbations. This proactive approach not only enhances disease management but also may reduce the frequency and severity of inflammation-related symptoms.

IDK® Calprotectin ELISA	
Matrix	Serum, Plasma
Sample volume	25 μL
Test principle	ELISA
Cat. No.	KR6935

Also available: Determination of calprotectin in

stool (KR6927) stool 1-point calibration (KR6967) urine (KR6928) mouse and rat (KR6936)

Literature:

• Kopeć-Medrek M, Widuchowska M, Kucharz EJ. Calprotectin in rheumatic diseases: a review. Reumatologia. 2016;54(6):306-309)



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