



# IDK<sup>®</sup> PMN Elastase

PMN-Elastase from human polymorphonuclear granulocytes is a glycoprotein of 30 kDa and belongs to the group of serine proteases. Active PMN-Elastase is released from azurophil granula of neutrophil granulocytes after irritation or disintegration.

The determination of the PMN-Elastase in stool is used to record inflammatory reactions where neutrophil granulocytes are involved. Especially in Crohn's disease the inflammatory processes go hand in hand with an increased phagocytic activity and the biological decay of these cells and thus leads to an increased release of PMN-Elastase and other lysosomal enzymes.

Langhorst et al. (2005) compared 4 neutrophil-derived proteins in feces as indicators of disease activity in ulcerative colitis. Among the neutrophil-derived proteins in feces, PMN-elastase, Calprotectin, and Lactoferrin represent useful markers of disease activity in patients with ulcerative colitis (UC). In their opinion using all 3 markers in a composite index may be an additional noninvasive tool for the management of ambulant patients with UC.

Silberer et al. (2005) compared five different leukocyte proteins (calprotectin, lactoferrin, lysozyme, myeloperoxidase, PMN-elastase) in feces of patients with chronic inflammatory bowel disease (IBD), irritable bowel syndrome (IBS) and healthy persons who underwent prophylactic colonoscopy. They found fecal PMN elastase and calprotectin to support the differentiation of chronic IBD from IBS and to correlate with the severity of inflammation.

## References

- Heinichen et al. (1995)** Clin Lab 41:539-545  
**Oremek et al. (1995)** MTA 10:273-278  
**Langhorst J (2005)** Inflamm Bowel Dis 11(12):1085-91  
**Silberer H (2005)** Clin Lab 51(3-4):117-26  
**Schröder O et al. (2007)** Aliment Pharmacol Ther (doi:10.1111/j.1365-2036.2007.03457.x)  
**Langhorst J et al. (2007)** Z Gastroenterol 45: P261

## Indications

- ▶ Diagnosis of Crohn's disease
- ▶ Chronic arthropathy
- ▶ Pancreatitis
- ▶ Bacterial infection, sepsis

## Reference Values

Stool	62 ng/ml
Serum	19 - 78 ng/ml

### IDK<sup>®</sup> PMN Elastase

Matrix	Stool
Sample volume	15 mg
Test principle	ELISA
Cat. No.	K 6840

also available as 1-point-calibration test (K 6830)

### IDK<sup>®</sup> PMN Elastase

Matrix	Serum, Plasma, Seminal Plasma
Sample volume	20 µL
Test principle	ELISA
Cat. No.	K 6841

also available as 1-point-calibration test (K 6831)



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