



Wieslab® Capture ANCA

– Ultimate serological tool for vasculitis diagnosis

OPTIMISED

- Euro Diagnostica has developed the capture technique that optimises antigen presentation

SENSITIVE

- High sensitivity for vasculitis diagnosis
- High sensitivity for detecting relapse

PROGNOSTIC

- Clinically proven prognostic performance

STANDARDISED

- Calibrated against AF/CDC standard

Technical features

- Capture ELISA format
- Calibrated against AF-CDC international standard
- Alkaline phosphatase/pNPP detection system – read at 405 nm
- 60 + 30 + 30 minutes incubation
- Colour-coded reagents
- Stop solution included
- Ready-to-use reagents (except wash solution)

PRODUCT INFORMATION

Product code	Product name	Tests
Cap PR3 IU	Capture PR3-ANCA Wieslab®	96 wells
Cap MPO IU	Capture MPO-ANCA Wieslab®	96 wells

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Capture ANCA assay displays higher clinical sensitivity than other available assays

Vasculitis is a general term referring to a heterogeneous group of diseases characterised by the inflammatory destruction of blood vessels. The condition arises when the immune system attacks the blood vessels, which may occur as a result of an infection, an autoimmune disease. ANCAs (anti-neutrophil cytoplasmic antibodies) are a family of auto-antibodies related to vasculitis and inflammatory disorders.

Examples of ANCA-associated vasculitides include granulomatosis with polyangiitis (GPA) (previously named Wegener's granulomatosis [WG]), Churg-Strauss syndrome, and microscopic polyangiitis (MPA).

Clinical evaluation of capture assays for determining PR3 ANCA shows that this format has a higher diagnostic sensitivity for detecting patients with GPA compared with the direct coating method or the Indirect Immunofluorescence^{1,2}.

Clinical performance for PR3 ANCA capture

	n	Neg	Eq	Pos
Blood donors	120	120	0	0
WG	83	3	1	79
MP	79	56	2	21
SLE	14	13	1	0
RA	14	14	0	0
Sjögren's syndrome	12	11	0	1
GBM	55	51	0	4*

*All four samples were C-ANCA positive.

A follow-up study of systemic vasculitis demonstrated that a high level of PR3-ANCA detected with the capture method was associated with significantly poorer renal survival³ plus higher mortality⁴. No such correlation could be seen with the direct assay. Moreover, studies also show that the capture assay displays higher sensitivity for detecting relapses, which further suggests a biological relation between disease progression and epitope specificity^{5,6,7}.

Principle of the Wieslab® Capture ANCA assay

Microtitre plate wells are coated with anti-PR3 and anti-MPO monoclonal antibody in complex with proteinase 3 and MPO, respectively. During the first incubation, specific auto-antibodies in diluted serum bind to the antigen coating. Optical density is measured following subsequent washing and incubation steps that involve adding conjugate and substrate. The optical density results for a sample are given in IU/mL adapted to the AF-CDC international standard for PR3 and MPO ANCA respectively.

Clinical performance for MPO ANCA capture

	n	Neg	Eq	Pos
Blood donors	120	120	0	0
WG	54	46	2	6
MP	79	32	1	46
GBM	55	42	4	9
SLE	14	14	0	0
RA	14	13	0	1
Sjögren's syndrome	12	12	0	0

Sensitivity and specificity comparison of Wieslab Capture PR3 ANCA assay with other methods⁸

n=120	Wieslab Capture PR3	Linker bound PR3	Mixed PR3 antigen	Direct PR3 coating
Sensitivity	40/40*	37/40	29/40	34/40
%	100%	93%	73%	85%
Specificity	80/80**	79/80	79/80	37/42
%	100%	99%	99%	88%

*Selected material, confirmed vasculitis, **Blood donors/disease controls

REFERENCES AND SUGGESTED READING:

1. Arranz, O et al. ClinNephrol 2001; 56: 295-301.
2. Csernok, E et al. Rheumatology 2004; 43: 174-180.
3. Westman, K et al. J Am Soc Nephrol 1998; 9: 842-852.
4. Westman, K et al. J Am Soc Nephrol 2003; 14: 2926-2933.
5. Gisslen, K et al. J. Intern Med 2002; 251: 0129-135.
6. Segelmark, M et al. Clin Exp Rheumatol 2000, 18, 629-635.
7. Wendt, M et al. Scand J Rheumatol 2012, 41, 116-119.
8. In-house data.

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