MONOCLONAL ANTIBODY DATASHEET



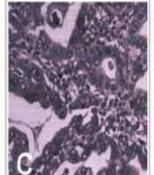
Clone 4A3, specific to human activated MMP-9

Specificity	activated human matrix metalloproteinase 9 (a-MMP-9)				
Description	monoclonal antibody against activated form of MMP-9, supplied as hybridoma supernatant				
Isotype	IgG1 _k				
Clone	4A3				
Purification	unpurified; supplied as hybridoma supernatant				
Immunogen	Ovalbumin-conjugated synthetic peptide; acetylated-FQTFEGDLK				
B Cell Donor	BALB-c mouse				
Fusion Partner	Ag 8563				
Positive Control	IHC: Formaldehyde-fixed, wax-embedded oesophegal adenocarcinoma Western Blot Activated recombinant MMP- 9, 400ng per lane				
Acceptance criteria	(i) no cross-reactivity in immunoblot panel (MMP-1, -2, -3); (ii) staining in antigen-positive wax-imbedded tissues				
Cross-reactivity	Western Blot: not reactive with proenzyme of MMP-9, nor proenzyme or activated forms of MMP-2				

Immunohistochemical localisation of activated MMP- 9 in oesophageal cancer using MAb 4A3







Oesophageal tumour sections previously shown to express MMP-9 were stained using undiluted 4A3 culture supernatant to an APAAP protocol, and counterstained with H&E.

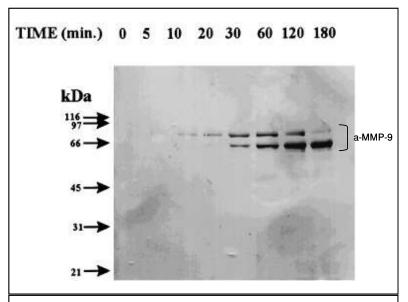
A) squamous carcinoma
 B) adenocarcinoma

C) -ve control lacking primary MAb

Activated MMP-9 is confined to tumour cells (arrows) and macrophages (arrowheads).

Applications		Recommended Dilution	Recommended Pretreatment	
ELISA (peptide mmunogen)	✓	undiluted	n/a	
Western Blot	✓	undiluted	n/a	
IHC	✓	undilution	No pretreatment necessary	

Tissues tested for aMMP-9 expression using 4A3 MAb			Staining pattern	Ref No.
Oesophegal adenocarcinoma & squamous carcinoma		+ve in all sections examined	1	
References	1	Duncan ME, Richardson JP, Murrray GI, Melvin WT & Fothergill JE (1998) Human matrix metalloproteinase-9: activation by limited trypsin treatment and generation of monoclonal antibodies specific for the activated form. <i>Eur. J. Biochem.</i> 258:37-43.		



The MMP-9 proenzyme was incubated with trypsin for various times and the products were analysed by Western blot. mAb 4A3 antibody recognised only activated MMP-9 (a-MMP-9)