

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	PAI-1, AF epitope, Human, clone MA-55F4C12		
Catalog number	HM2180-20UG		
Lot number	-	Expiry date	-
Volume	200 µl	Amount	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	Concentration	100 µg/ml
Host Species	Mouse IgG1	Conjugate	None
Endotoxin	<24 EU/mg	Purification	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes					•	•		
No								
N.D.	•	•	•	•			•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FS: Antibody MA-55F4C12 is useful for inhibition of biological activity. For inhibition of biological activity dilutions have to be made according to the amounts PAI-1 to be inactivated.

General Information

Description	Plasminogen activator inhibitor type-1 (PAI-1), a member of the serine protease inhibitor (serpin) superfamily is an important protein in the regulation of fibrinolysis. PAI-1 is unique among the serpins because of its functional and conformational flexibility. PAI-1 is the most important physiological inhibitor of both tissue-type plasminogen activator (t-PA) and urokinase-type plasminogen activator (u-PA). Increased PAI-1 levels are associated with thrombotic events and is an established risk factor for cardiovascular diseases. The active conformation PAI-1 inhibits its target proteinases by the formation of a stable, inactive complex. Although PAI-1 is synthesized as an active molecule, it converts spontaneously to an inactive, latent form that can be partially reactivated by denaturing agents. In addition, a third conformation reacting as a non-inhibitory substrate towards various target proteinases has been identified. The epitope of monoclonal antibody MA-55F4C12 is within the stretch of 29 amino acids in PAI-1 (region Glu ¹²⁸ -Ala ¹³¹). Glu ¹²⁸ , Val ¹²⁹ , Glu ¹³⁰ , Arg ¹³¹ and Lys ¹⁵⁴ are the major determinants. All five residues act cooperatively in the binding to MA-55F4C12 and constitute the epitope. The epitope of the antibody does not cover the complete alpha-helix F and turn connecting alpha-helix F and beta-strand s3A, but is restricted to the hinge region between alpha-helix F and the main part of the PAI-1 molecule. The monoclonal antibody MA-55F4C12 is a 'switching' antibody, capable of inducing a non-inhibitory substrate form of PAI-1. The antibody cross reacts with rat and mouse PAI-1.
Aliases	PAI-1, endothelial plasminogen activator inhibitor, serpin E1, plasminogen activator inhibitor 1.
Cross reactivity	Mouse: Yes; Rat: Yes.
References	<ol style="list-style-type: none"> Debrock, S et al; Neutralization of plasminogen activator inhibitor-1 inhibitory properties: identification of two different mechanisms. Biochim Biophys Acta 1997, 1337: 257 Bijnens, A et al; Importance of the hinge region between alpha-helix F and the main part of serpins, based upon identification of the epitope of plasminogen activator inhibitor type 1 neutralizing antibodies. J Biol Chem 2000, 275: 6375 Naessens, D et al; Elucidation of the epitope of a latency-inducing antibody: identification of a new molecular target for PAI-1 inhibition. Thromb Haemost 2003, 90: 52
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
02/12/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.