

**Anti-APC–AAT complexes, neoepitope (human)
 Mouse monoclonal antibody**

 Subclass: IgG₁/k

PRODUCT NO.

ABS 001-07

Clone: PC 7

PRESENTATION

Preparation: Protein-G purified

Content: Available in 200 µL and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details.

Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide

Storage: 4-8°C without exposure to light. No precautions necessary during handling.

ANTIGEN

Protein C is a vitamin K-dependent serine protease produced in the liver and made up of 2 polypeptide chains. The 62kDa proenzyme is activated by thrombin and the active enzyme cleaves factor Va and VIIIa and thus inhibits blood coagulation. The molecular weight of the active enzyme is 55kDa and the normal concentrations in human plasma is approximately 1-3 ng/ml because of the very fast turnover, the proenzyme concentration is approximately 3 µg/ml. The activated protein C (APC) is inhibited by members of the serine protease inhibitor (serpin) family, of which α_1 -antitrypsin (AAT) and protein C inhibitor (PCI) are the most important.

IMMUNOGEN

Recombinant human activated protein C adsorbed onto aluminum hydroxide gel

SPECIFICITY

ABS 001-07 is specific for a conformation-dependent neoepitope that is expressed in activated protein C upon complex-formation with α_1 -antitrypsin. No reaction is seen to non-complexed α_1 -antitrypsin and only very little cross reaction to protein C zymogen. Note that specificity is calcium dependent.

EPI TOPE SPECIFICITY

Not determined

REACTIVITY

ABS 001-07 reacts strongly with APC-AAT complexes in ELISA. It can be used in sandwich ELISA in combination with a polyclonal anti-protein C antiserum. Note, that the conformational neoepitope expressed in the APC-AAT complex can also be expressed in APC coated directly onto a high-binding microtiter plate.

CULTURE MEDIUM

RPMI 1640 with 2-10% fetal calf serum

FUSION PARTNER

SP2mIL6

IMMUNIZATION

Female BALB/c mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	References
ELISA	Yes	
Immunoblotting	Not determined	
Immunohistochemistry	Not determined	

REFERENCES

- Dahlback B, Villoutreix BO. Molecular recognition in the protein C anticoagulant pathway. *J Thromb Haemost* 2003; 1:1525-1534.
- Strandberg K, Astermark J, Bjorgell O, Becker C, Nilsson PE, Stenflo J. Complexes between activated protein C and protein C inhibitor measured with a new method: comparison of performance with other markers of hypercoagulability in the diagnosis of deep vein thrombosis. *Thromb Haemost* 2001; 86:1400-1408.

CONDITIONS

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