ANTIBODYSHOP®

PRODUCT SPECIFICATION

12/06/2014

APC-PCI Complex specific antibody

Mouse monoclonal antibody

Subclass: IgG1/k

CAT. NO. **JST 001-38**

Clone:M36

SPECIFICITY	JST 001-38 is specific for APC:PCI complex and cleaved PCI but has little reactivity towards native PCI. The dissociation constants (as determined by standard surface plasmon resonance technique) are: Kd= 4x10e-10 M for PCI in complex with APC and 2x10e-10 M for cleaved PCI. The value of Kd for native PCI is too low to measure, i.e. ≥ 10e-5 M.
IMMUNOGEN	Mixture of PCI in complex with PSA (approx. 80%) and PCI cleaved from such a complex (approx. 20%).
TESTED APPLICATIONS	ELISA, WB (Not applicable)
SPECIES REACTIVITY (POSITIVE)	Human
SPECIES REACTIVITY (NEGATIVE)	Not determined
EPITOPE SPECIFICITY	The epitope is loctated in the calcium-binding N-terminal EGF domain of protein C.

PRESENTATION

Content:	Available in 200 µL and 1 mL size.1 mg/mL +/- 15%. See Certificate of Analysis for details.
Preparation:	Protein-A purified
Form:	Liduid
Solvent:	0.01 M phosphate buffer, pH 7.4, with 0.14 M NaCl and 15 mM sodium azide
Storage:	4-8ºC without exposure to light. No precautions necessary during handling.

APPLICATION

ELISA: JST 001-38 shows excellent reactivity towards PCI in cleaved and complex form in ELISA. JST 001-38 is a part of the APC-PCI Matched Reagent Set, and can be used in ELISA as a capture antibody in combination with SA001RA as the detection antibody (1-5).

WB: JST 001-38 shows low reactivity against denatured antigen in SDS-PAGE.

TARGET

Activated Protein C (APC), a serine proteinase is inhibited by Protein C inhibitor (PCI). PCI belongs to a group of inhibitors sometimes referred to as serpines (serine proteinase inhibitors), and form 1:1 complexes with APC. PCI plasma concentration is approximately 4ug/m1 .The complex formation between APC and PCI proceeds at a slow rate, which is manifested by a long half-life for APC in plasma, wherein $t_{1/2}$ is about 20 min.However, the rate of complex formation between APC and PCI is increased by heparin.Upon complex formation with APC, the serpin is cleaved in its so-called bait region, whereby a stable intermediate acyl complex is formed. With time, the intermediate acyl complex dissociates, whereby APC is regenerated and a proteolytically modified, i. e. cleaved, inactive serine proteinase inhibitor is formed.

REFERENCES

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2.Bremme K, Hamad R, Berg E, Strandberg K, Stenflo J (2012) The APC-PCI concentration as an early marker of activation of blood coagulation: a study of women on combined oral contraceptives. Thromb Res.130:636-9.

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5.Heslet L, Hald R, Recke C, Bangert K, Uttenthal LO (2008) Activated protein C-protein C inhibitor (APC-PCI) complex as a prognostic marker in sepsis. Presented at the The International Sepsis Forum (ISF) 2008, Granada, Spain.

CONDITIONS