SEKISUI

Monoclonal antibody against human Plasminogen activator inhibitor type 2

Product No. ADG73

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Description

Plasminogen Activator Inhibitor Type 2 (PAI-2) is one of two endogenous inhibitors of urokinase-type plasminogen activator (urokinase, uPA). PAI-2 is a member of the serpin family of protease inhibitors. It exists as a 48 kDa non-glycosylated form found in placental tissue and a 60 kDa glycosylated secreted form found in maternal blood and ascitic fluid.

Generally PAI-2 is undetectable in the majority of peripheral blood samples. However levels of PAI-2 appear to be higher in patient´s ascitic fluid from malignant tumors, as compared to benign tumors (1).

Preparation

The monoclonal antibody ADG73 (clone HD-PAI-2 22.1) is a murine monoclonal antibody, subclass IgG_1 recognizing the human Plasminogen Activator Inhibitor Type 2 (PAI-2). Mice were immunized with recombinant PAI-2. The antibody has been purified from cell culture supernatant using Protein G affinity chromatography. The antibody reacts with both native and recombinant PAI-2.

Specificity

The antibody reacts with both the high molecular weight (60kD) and the low molecular weight (48kD) forms of PAI-2. The antibody also reacts with tPA/PAI-2 and uPA/PAI-2 complexes.
The antibody is specific for human PAI-2. No cross-reactivity was observed against other members of the plasminogen activator system (PAI-1, uPA, and tPA).

Presentation

Screw capped vial containing 250 µg of purified antibody in PBS pH 7.4 + 0.1% ProClin300. The IgG concentration is 1 mg/ml. Spin the vial briefly before opening.

Storage and Stability

Store the antibody at 2°-8°C. For long-term storage the antibody should be aliquoted and stored at –20°C or colder. It is recommended to avoid freeze-thaw cycles.

Applications

ELISA

The antibody can be used as capture or detection antibody in ELISAs (2).

Flow Cytometry

The antibody can be used for flow cytometric analysis of cells expressing PAI-2 on their surface (3).

Immunohistochemistry

The antibody can be used for immunohistological staining of frozen (4) and formalin-fixed, paraffin-embedded tissue sections (5).

References

1. Plasminogen activators and plasminogen activator inhibitors in blood and tumour fluids of patients with ovarian cancer. Casslén B et al., Eur J Cancer. 1994;30A(9):1302-1309.

2. Plasminogen activator inhibitor-2: prognostic relevance in 1012 patients with primary breast cancer. Foekens JA et al., Cancer Res. 1995 Apr 1;55(7):1423-1427.

3. Plasminogen activator inhibitor type-2 (PAI-2) in human keratinocytes regulates pericellular urokinase-type plasminogen activator. Reinartz J et al., Exp Cell Res. 1996 Feb 25;223(1):91-101.

4. Plasminogen activation in bullous pemphigoid immunohistology reveals urokinase type plasminogen activator, its receptor and plasminogen activator inhibitor type-2 in lesional epidermis. Schaefer BM, et al., Autoimmunity. 1996;23(3):155-164.

5. Epitopes of components of the plasminogen activation system are re-exposed in formalin-fixed paraffin sections by different retrieval techniques. Ferrier CM et al., J Histochem Cytochem. 1998 Apr;46(4):469-476.