Human CD141 (Thrombomodulin)
Clone 15C8
Cat. no. MONX10438

Specificity
The antibody reacts with human thrombomodulin, also known as fetomodulin, endothelial anticoagulant protein, glycoprotein P112 and CD141. Thrombomodulin is a transmembrane glycoprotein of 75kD which can accelerate the activation of protein C. Activated protein C (APC) functions as an anticoagulant by combining with protein S to inactivate factors Va and VIIIa of the blood coagulation pathway and by binding thrombin. Several factors regulate thrombomodulin expression. Downregulation of thrombomodulin may be induced by the cytokine interleukin-1, tumour necrosis factor and endotoxin. Agents which increase cyclic AMP such as forskolin may upregulate thrombomodulin activity in endothelial cells. Thrombomodulin has been identified within a number of normal tissues. These include the lining cells of arteries, veins, capillaries and the lymphatics as well as mesothelial cells, meningeal lining cells, synovial cells, syncytiotrophoblasts, megakaryocytes and platelets. In cases of oral squamous cell carcinoma, the reduction of thrombomodulin expression seems to play an important role in metastasis with a poor outcome for patients. Thrombomodulin is absent from most pulmonary adenocarcinomas but is expressed in malignant pleural mesotheliomas, vascular tumours and choriocarcinomas. The distinction between malignant pleural mesotheliomas and adenocarcinoma of the lungs or other organs is an important one due to differences in patient survival rates. This makes thrombomodulin an important marker which should be used alongside antibodies to cytokeratins, vimentin, CEA, CD15, calretinin and mesothelin. This would improve the sensitivity and specificity for the differential diagnosis of mesotheliomas and adenocarcinomas.

Immunoglobulin type
Murine IgG1

Use
The antibody can be used for immunohistochemistry on frozen (acetone fixation recommended) and paraffin sections.

Instructions for use
Immunohistochemistry:
Typical working dilution 1:50 - 1:100.
High temperature antigen unmasking technique.
60 minutes primary antibody incubation at 25oC.
Standard ABC technique.

Staining pattern : Membrane
Antigen used for immunisations : Prokaryotic recombinant protein corresponding to the epidermal growth factor homology domain of the human CD141 molecule.

Positive control
Tonsil
**Presentation**
Lyophilised tissue culture supernatant containing 15mM sodium azide.
Reconstitute with 1ml or 0.1ml of sterile distilled water as indicated on vial label.

**Literature**

**Storage and Handling**
Store unopened lyophilised antibody at 4° C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4° C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20° C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.

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