

Code No. 10375

**Anti-Human
SP-A (PE10) Mouse IgG MoAb**Volume : 500 µg

Introduction : Lung surfactant is a lipoprotein complex which is synthesized and secreted into the alveoli of the lung by type II pneumocytes. Its major protein component, surfactant protein-A (SP-A), is a glycoprotein with a reduced denatured molecular mass of 35 kDa, and is a useful immunohistochemical marker for lung adenocarcinoma.

The reactivity of PE10 antibody shows that normal type II pneumocytes and pulmonary macrophages are positive for SP-A in the cytoplasm, whereas type I pneumocytes, bronchial surface epithelial cells and bronchial gland cells are devoid of immunoreactivity. Immunoreactivity for SP-A is also seen in reactive hyperplastic type II pneumocytes, and is stronger in the hyperplastic type II pneumocytes than in normal type II pneumocytes. In primary lung adenocarcinoma, the expression of SP-A is almost the same for the various adenocarcinomas classified by the grade of histological differentiation.

Antigen : Purified surfactant apoprotein A

Source : Mouse-Mouse hybridoma

Clone : PE10 **Subclass** : IgG2b

Purification : Affinity purified with Protein A

Form : Lyophilized product from PBS containing 1 % BSA and 0.05 % NaN₃

How to use : 1.0 mL deionized water will be added to the product, then its concentration comes to 500 µg/mL

Stability : Lyophilized product, 5 years at 2 - 8 °C
: Solution, 2 years at -20 °C

Application : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues. Stained image can be improved by heating antigen retrieval. The optimal dilution rate is about 100-fold (about 5 µg/mL), however, the concentration should be optimized by each laboratory.

Reference : 1. Shijubo N, Honda Y, Fujishima T, Takahashi H, Kodama T, Kuroki Y, Akino T, Abe S. Lung surfactant protein-A and carcinoembryonic antigen in pleural effusions due to lung adenocarcinoma and malignant mesothelioma. *Eur Respir J.* 1995 Mar;8(3):403-6.
2. Murakami S, Iwaki D, Mitsuzawa H, Sano H, Takahashi H, Voelker DR, Akino T, Kuroki Y. Surfactant protein A inhibits peptidoglycan-induced tumor necrosis factor-alpha secretion in U937 cells and alveolar macrophages by direct interaction with toll-like receptor 2. *J Biol Chem.* 2002 Mar 1;277(9):6830-7.

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