

Anti-Human Proteinase Inhibitor 9, Clone PI9-17 Monoclonal Antibody

Catalog No: MON2065

Size: 250 µg

Clone: Clone PI9-17

Specificity: The human intracellular serpin proteinase inhibitor 9 (PI9) is the only human protein able to inhibit the activity of the serine protease granzyme B. Granzyme B is expressed by cytotoxic lymphocytes and induces rapid target cell apoptosis. PI9-17 mAb was selected after immunization with full length recombinant PI9 produced in Escherichia coli. No cross reactivity with other, homologous serpins (PI6, PI8 and PAI-2) was observed.

Immunoglobulin

Type: Mouse IgG1

Use: The antibody can be used for immunocytochemistry and Western blotting.

Instructions for Use:

Immunocytochemistry: PI9 can be used on formaldehyde-fixed paraffin-embedded human tissues after pretreatment with 10 mM citric acid pH 6.0 for 20 min (use approx 1:100). For fixed cytospin preparations fix cells for 10 min in 10% formalin and then treat them as paraffin sections. The antibody is not suitable for flow cytometry. The mAb can be used in standard Western blot procedures. It detects native PI9 (42 kD) as well as PI9 complexed to granzyme B (67 kD). As a positive control for PI9, YT-Indy cells (a natural killer leukemia cell line) can be used. In other cell lines a non-specific protein band around 63 kD can be detected.

Presentation: 1 ml vial (>200 tests) containing antibody in serum free culture supernatant, with 0.7% BSA and 0.1% sodium azide. Concentration approx. 250 µg immunoglobulin/ml.

Storage: 4°C. For extended storage, freeze at -20°C.

References:

1. Bird, C. H., et al. 1998. Selective regulation of apoptosis: the cytotoxic lymphocyte serpin proteinase inhibitor 9 protects against granzyme B-mediated apoptosis without perturbing the Fas cell death pathway. *Mol. Cell Biol.* 18:6387.
2. Bladergroen BA, et al. The granzyme B inhibitor, protease inhibitor 9, is mainly expressed by dendritic cells and at immune privileged sites. *Journal of Immunology*; 2001, 166: 3218-3225.
3. Bladergroen BA, et al. Expression of the granzyme B inhibitor, protease inhibitor 9, by tumor cells in patients with non-Hodgkin and Hodgkin lymphoma: a novel protective mechanism for tumor cells to circumvent the immune system? *Blood*. 2002 Jan 1; 99(1):232-7.

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