Specification Sheet


Please note
Some information is Lot dependent.

Presentation
Monoclonal mouse antibody supplied in liquid form as tissue culture supernatant (RPMI 1640 medium containing fetal calf serum) dialysed against 0.05 mol/L Tris/HCl, pH 7.2 containing 15 mmol/L NaN₃.
Mouse Ig concentration: 460 mg/L.
Isotype: IgG1, kappa.
Total protein concentration: 15.5 g/L.

Storage
2-8 °C.

Clone
EBM11. (1).

Immunogen
Macrophages isolated from human lung (1).

Specificity/reactivity
The DAKO antibody detects an 110 kDa glycoprotein. Studies using immunoabsorbant columns and cells transfected with a cDNA clone encoding the CD68 antigen have shown that the same molecule is also recognized by antibodies KP1, PG-M1, Y1/82A, Y2/131, and Ki-M6 (2). The antigen is expressed primarily as an intracytoplasmic molecule, probably associated with lysosomal granules.
The antibody was included in the Fourth International Workshop on Human Leucocyte Differentiation Antigens (Vienna 1989), and studies by different laboratories confirmed its reactivity with the CD68 antigen (3).
The antibody stains macrophages in a wide variety of human tissues, including Kupffer's cells and macrophages in the red pulp of the spleen, in lamina propria of the gut, in lung alveoli and in bone marrow (1, 4-6). Antigen-presenting cells, e.g. Langerhans' cells of skin and interdigitating reticulum cells of T cell zones in tonsil and lymph node, are positively stained, but not dendritic reticulum cells (1, 4). Peripheral blood monocytes, large lymphocytes, and basophils and mast cells are also positive with a granular staining pattern (4, 5). Neutrophils react only weakly with this antibody (4). The same overall staining pattern is observed in bovine tissue with the exception of negative staining of epidermal Langerhans' cells (7).
The antibody stains tumour cells in cases of chronic and acute myeloid leukaemia giving strong granular staining of the cytoplasm of many cells, and also in a few cases react with cells from cases of true histiocytic neoplasia (8-10). This antibody also reacts with macrophages and dendritic cells from monkey (11, 12).

Staining procedures
Formalin-fixed and paraffin-embedded sections
Not suitable for use on formalin-fixed, paraffin-embedded tissue sections. However, one study reports that the antibody under certain conditions may work on routinely fixed material (13).
Frozen sections and cell smears
Can be used for labelling acetone-fixed cryostat sections or fixed cell smears. For staining cell smears the alkaline phosphatase anti-alkaline phosphatase (APAAP) technique is recommended.
The antibody may be used at a dilution of 1:100-1:150 in the three-stage immunoperoxidase technique when tested on acetone-fixed cryostat sections and smears of peripheral blood cells.
This is a guideline only; an optimal dilution should be determined by the individual laboratory.

References


