ANTIGEN: Macrophage-1

ANTISERUM: Dako (M0632). Monoclonal (mouse) antibody. Clone: HAM 56. Isotype: IgM

REACTIVITY ACCORDING TO MANUFACTURER: This antibody recognizes human macrophages. The antigen recognized is so far uncharacterized. It labels fixed tissue macrophages, e.g. tingible body macrophages, and interdigitating macrophages of lymph nodes, and tissue macrophages such as Kupffer cells of the liver and alveolar macrophages of the lung. It identifies macrophages in the brain from people suffering multiple sclerosis. A variable subpopulation of endothelial cells, most prominently those of the capillaries and smaller blood vessels, is also labelled. The antibody reacts with monocytes but is unreactive with B and T lymphocytes; however, variable reactivity with B cell lymphomas has been noted. Smooth muscle cells, neural tissue, fibroblasts and epithelia, except for occasional tubular epithelial cells of the kidney, are also unreactive. Amongst peripheral blood cells it labels a large subset of the monocyte/macrophage population. It is nonreactive with lymphocytes, platelets, granulocytes, or red blood cells.

Species cross-reactivity: human, monkey.

STAINING PROCEDURE ACCORDING TO MANUFACTURER:

It can be used on formalin-fixed, paraffin-embedded tissue sections. Pretreatment with proteolytic enzymes should be performed. Reactivity on formalin-fixed tissue is less consistent than that observed on methanol-Carnoy’s fixed tissue sections.

Paraffin-embedded tissues: Avidin-biotin-peroxidase or alkaline phosphatase methods can be used. Suggested dilution for LSAB method: 1/50.

Cryostat sections and cell smears: It can be used with acetone-fixed frozen sections and cell smears.


METHOD: ENVISION+ -PO. 2h. RT.

CELLS/TISSUES STAINED:


Porcine tissues. Lung with strong labeling of many epithelial-like cells in airways and amorphous DAB deposit in alveoli (areas of inflammation/necrosis?). Some granular to dendritic staining in lymphoid follicles of lymph nodes (dendritic cells?). Tonsil: Multidocal staining of crypt epithelium and occasional staining of follicular cells. No staining of mucosal epithelium.

REFERENCES:

Adams CW, Poston RN (1990) Macrophage histology in paraffin-embedded multiple sclerosis plaques is demonstrated by the monoclonal pan-macrophage marker HAM-56: correlation with chronicity of the lesion. Acta Neuropathol 80:208-