ANTIGEN: CD11d (alphaD)

ANTISERUM: Dr. Peter Moore, University of California-Davis (pfmoore@ucdavis.edu). Muse monoclonal antibody. Clone: CA18.3C6. Isotype: IgG1

IMMUNOGEN:

PRESENTATION: Tissue culture supernatant.

PROTEIN CONCENTRATION (mg/ml):

IMMUNOGLOBULIN CONCENTRATION (µg/ml):

REACTIVITY ACCORDING TO THE LITERATURE:

The beta2 integrins (CD11/CD18) are the major adhesion molecule family of leukocytes. Most leukocytes express one or more members of this family. CD18 is the beta2 subunit which pairs with one of four alpha subunits to form a heterodimer. Hence, staining for CD18 indicates the presence of the beta2 subunit, but does not indicate which of the 4 integrin molecules is present. The four alpha subunits are: CD11a (all leukocytes), CD11b (granulocytes, monocytes, some macrophages), CD11c (granulocytes, monocytes, dendritic antigen presenting cells), alpha_d (CD8 T-cell subpopulation including large granular lymphocytes, macrophages and gamma-delta T cells in splenic red pulp). Macrophages and granulocytes express 10-fold more CD18 than do lymphocytes. In formalin-fixed tissues, and after antigen retrieval lymphocytes may not be positive for CD18 (use CD3, CD79a to rule out lymphoid origin of CD18-negative cells) (Moore et al., 1996). CD11d is not present in Langerhans cells, dendritic cells of the dermis and cells of reactive histiocytosis (cutaneous or systemic) (Affolter et al., 2000).

STAINING PROCEDURE ACCORDING TO MANUFACTURER:

Frozen sections: It does not work.

Formalin-fixed, paraffin-embedded tissues: Antigen retrieval with heat is necessary. Titration of the antibody starting at 1/10.

WORKING DILUTION: 1/300. Pretreatment with steamer (citrate buffer, pH 6.0).

METHOD: LSAB+/PO. 1 h, RT.

SPECIES CROSS-REACTIVITY: Dog.

CELLS/TISSUES STAINED (canine tissues unless specified):

- Spleen. Very strong reaction in numerous cells of the red pulp (interpreted as macrophages). Rare positive mononuclear cells in white pulp.
- Lymph node. Staining of sinusoidal macrophages and some mononuclear cells of lymphoid follicles (mainly mantle zone).
REFERENCES:


