

Monoclonal Antibody to WC1-N2 Pan Leukocytes

Catalog No.: VBAQ4A-01 VBAQ4A-05

Quantity: 0.1 mg 0.5 mg

Concentration: 1.0 mg/ml

Background: WC1 is expressed exclusively on CD4-/CD8- gamma delta T lymphocytes with >90% of circulating gamma delta T cells in cattle, goats, sheep, pig, deer, elk, llamas, and camels. WC1+ cells are found in the thymus, lymph nodes, spleen, in the dermis of the skin and the lamina propria of the gastrointestinal tract. Multiple WC1 genes are estimated to be in the order of 10 genes within a region of ~1 Mb in cattle which encodes the heterogeneous WC1 isoforms with overlapping epitopes and patterns of expression. Using mAb specific for each of 3 expressed WC antigens, WC1.1, W1.2 and WC1.3, it was found that some of the WC1.1 and WC1.2 encoded antigens are expressed on non-overlapping subsets of peripheral blood gamma delta T cells, whereas the WC1.3+ subset is contained within the WC1.1+ subset. BAQ4A recognizes an epitope termed N2 that is expressed on the majority of WC1 isoforms. Two color analysis with B7A1, that recognizes epitope N1, has shown there are small N2+ N1- and N2- N1+ populations of WC1+ cells. Two color analysis with anti-WC1 mAbs that recognize epitopes expressed on isoforms may be partially or completely included in the WC1+ populations of cells expressing N1 and N2. The mutually exclusive populations that express the N3 or N4 epitopes are included in the populations expressing N1 and N2.

Host / Isotype: Mouse IgG1

Clone: BAQ4A

Format: **State:** Liquid ascites
Purification: Clarified by centrifugation, and filtered through a 0.2 µM filter.
Buffer System: Supplied in phosphate buffered saline, preserved with sodium azide.

Applications: Suitable for flow cytometry and immunohistochemistry.
Other applications not tested. Optimal dilutions of this antibody are dependent on conditions and should be determined by the user.

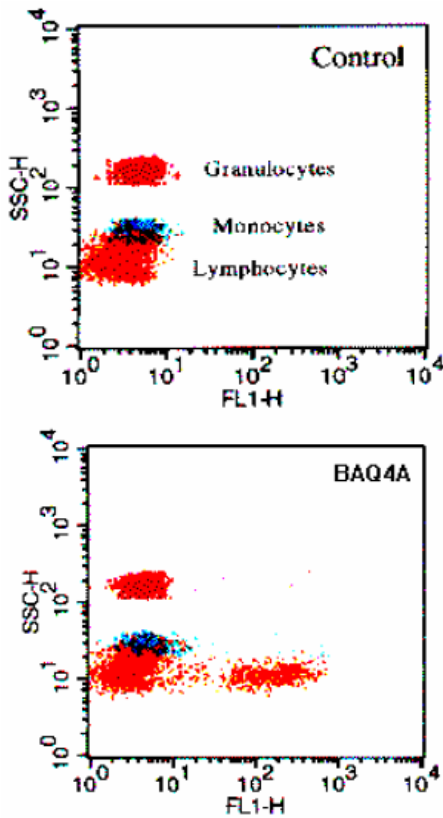
Specificity: This antibody detects WC1-N2 Pan Leukocytes. Labels 15 % PBMC.
Species: Cattle, goat, sheep, camel, water buffalo, Cape buffalo, white tail deer, mule deer, black tail deer, elk or bison. Does not react with swine, horse, cat, dog, ferret, mink or llama.

Storage: Store at 2 – 8 °C.
Should this product contain a precipitate we recommend microcentrifugation before use. Shelf life: one year from despatch.

References:

- Ahn, J.S., et al. Scavenger receptor cysteine-rich domains 9 and 11 of WC1 are receptors for the WC1 counter receptor. *J. Leukoc. Biol.* 72(2):382-390 (Aug. 2002).
- MacHugh, N.D., et al. Clustering of monoclonal antibodies recognizing different members of the WC1 gene family. *Vet. Immunol. Immunopathol.* 39(1-3):155-160 (Nov. 1993).
- Howard, C.J., and J. Naessens. Summary of workshop findings for cattle (tables 1 and 2). *Vet. Immunol. Immunopathol.* 39(1-3):25-48 (Nov. 1993).
- Davis, W.C., et al. Ruminant leukocyte differentiation molecules. In: *MHC, Differentiation Antigens and Cytokines in Animals and Birds. Monographs in Animal Immunology*, edited by O. Barta. Blacksburg, VA: Bar-Lab, Inc., 1990, pp. 47-70.
- Davis, W.C., and R.A. Larsen. Genetic markers identified by immunogenetic methods. *Am. Fish. Soc. Symp.* 7:521-540 (1989).

Picture(s):



Profile obtained with bovine leukocytes.

VBAQ4A-01_-05/AV0207

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