

**SM410R****Monoclonal Antibody to CD5 - PE**

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| <b>Alternate names:</b> | LEU-1, LEU1, Ly-1, Lymphocyte antigen T1/Leu-1, Lyt-1, T-cell surface glycoprotein CD5   |
| <b>Quantity:</b>        | 0.1 mg   |
| <b>Concentration:</b>   | 0.1 mg/ml  |
| <b>Background:</b>      | CD5 is a 55kDa T lymphocyte single chain transmembrane glycoprotein. It is present on all mature T lymphocytes, on most thymocytes and on many T cell leukemias and lymphomas. It reacts with a subpopulation of activated B cells. CD5/Lyt1 antigen is a monomeric type I transmembrane glycoprotein expressed on thymocytes, T lymphocytes, and a subset of B lymphocytes, but not on natural killer (NK) cells. It has been identified as the major ligand of the B cell antigen CD72. The frequency of CD5+ B cells exhibits strain dependent variation, and the phenotypic, anatomical, functional, developmental, and pathological characteristics of the CD5+ B cells suggest that they may represent a distinct lineage, known as B1 cells. Binding of CD5 on the T cell surface can augment alloantigen or mitogen induced lymphocyte proliferation and induces increased cytosolic free calcium, IL2 secretion, and IL2R expression. It has been proposed that CD5 negatively regulates signal transduction mediated by the T cell and B cell receptors. |
| <b>Host / Isotype:</b>  | Rat / IgG2a  |
| <b>Clone:</b>           | YKIX322.3  |
| <b>Immunogen:</b>       | Concanavilin A activated canine peripheral blood cells. Spleen cells from immunised DA rat were fused with cells of the rat Y3/A1.2.3 myeloma cell line.   |
| <b>Format:</b>          | <b>State:</b> Lyophilized purified IgG<br><b>Purification:</b> Affinity chromatography on Protein G<br><b>Buffer System:</b> PBS, pH 7.4 containing 0.09% Sodium Azide and 1% Bovine Serum Albumin<br><b>Label:</b> PE – R. Phycoerythrin (RPE)<br><b>Reconstitution:</b> Restore with 1.0 ml distilled water  |
| <b>Applications:</b>    | Flow Cytometry.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.  |
| <b>Specificity:</b>     | This antibody recognises a 67kD cell surface glycoprotein expressed on the surface of T-cells. Clone YKIX322.3 was clustered as CD5 in the first canine leucocyte antigen workshop.<br><b>Species:</b> Dog.<br>Other species not tested.   |
| <b>Storage:</b>         | Prior to and following reconstitution store the antibody at 2-8°C.<br>DO NOT FREEZE!<br>This product is photosensitive and should be protected from light.<br>Shelf life: one year from despatch.  |

**General Readings:**

1. Hewicker-Trautwein M, Carter SD, Bennett D, Kelly DF. Immunocytochemical demonstration of lymphocyte subsets and MHC class II antigen expression in synovial membranes from dogs with rheumatoid arthritis and degenerative joint disease. *Vet Immunol Immunopathol.* 1999 Mar 1;67(4):341-57. PubMed PMID: 10206202.