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Monoclonal Antibody to MHC Class II (RT1B) (monomorphic) - FITC

Catalog No.: SM084FS

Quantity: 50 µg

Concentration: 0.1 mg/ml

Background: The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In rats, this complex is referred to as the RT1 region. In mice, this complex is referred to as the H2 region.

Host / Isotype: Mouse / IgG1

Clone: OX-6

Immunogen: Rat thymocyte membrane glycoprotein. Spleen cells from immunised BALB/C mice were fused with cells fo the mouse NS1 myeloma cell line.

Format: **State:** Liquid purified IgG fraction.
Purification: Affinity Chromatography on Protein G.
Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer
Label: FITC – Fluorescein Isothiocyanate Isomer 1

Applications: **Flow Cytometry:** Use 10 µl of Neat-1/10 diluted antibody to label 10e6 cells in 100 µl.
This product is routinely tested in Flow Cytometry on rat splenocytes.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognises a monomorphic determinant of the I-A antigen present on B lymphocytes, dendritic cells, some macrophages and certain epithelial cells.
This antibody cross reacts with certain Mouse strains of MHC haplotypes k and s. Analysis of recombinant mouse strains has mapped the OX6 determinant to the H2IA region. (1, 6)
This clone does not react with the Rat BDIX strain due to a defect in RT1B expression.(6)

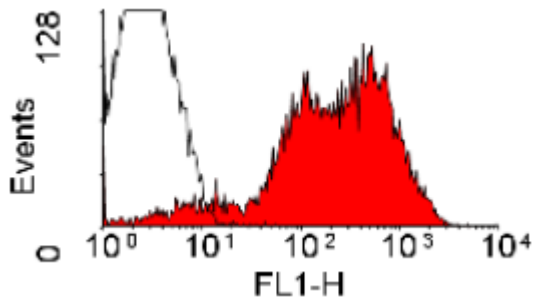
Species Reactivity: **Tested:** Rat and Mouse.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General References:
1. McMaster, W. R. and Williams, A. F. (1979) Identification of Ig glycoproteins in rat thymus and purification from rat spleen. Eur. J. Immunol. 9: 426-433.
2. Fernandez, J. L. and Weeks, M. (1986) Genetic monitoring of inbred strains of mice using monoclonal antibodies to major histocompatibility haplotypes and lymphocyte alloantigens. Lab. Anim. 20: 293-297.
3. Charteris, D. G. and Lightman, S. L. (1993) In vivo lymphokine production in experimental

autoimmune uveoretinitis. Immunology. 78: 387-392.
4. Whiteland, J. L. et al. (1995) Immunohistochemical detection of T-cell subsets and other leucocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. J. Histochem. Cytochem. 43: 313-320.
5. McKechnie, N. M. et al. (1997) Immunization with the cross-reactive antigens Ov39 from Onchocerca volvulus and hr44 from human retinal tissue induces ocular pathology and activates retinal microglia. J. Infect. Dis. 176: 1334-1343.
6. Male, D. K. et al. (1987) Serological evidence from a defect in RT1. B (I-A) expression by the BDIX rat strain. J. Immunogenet. 14: 301-312.
7. Burrows, G. G. et al. (1998) Two-domain MHC class II molecules form stable complexes with myelin basic protein 69-89 peptide that detect and inhibit rat encephalitogenic T cells and treat experimental autoimmune encephalomyelitis. J. Immunol. 161: 5987-5996.
8. Zilka, N. et al. (2009) Human misfolded truncated tau protein promotes activation of microglia and leukocyte infiltration in the transgenic rat model of tauopathy. J. Neuroimmunology. 209: 1625.

Pictures:



Staining of rat spleen cells with Mouse Anti Rat RT1B (Class II Monomorphic): FITC