

Monoclonal anti-human MHC Class II (HLA-DP, DQ & DR)/APC*

mAb name/Clone: TDR31.1

Isotype: Mouse IgG1

Immunogen: Purified class II from JY cell line

CATALOG#: 131-060

QUANTITY: 120 tests

VOLUME IN VIAL: 0.2 ml

WORKING DILUTION: 1:50 (or use 1.6µl of concentrated stock per 5 x 10⁵-cell test)

INFORMATION: Human MHC Class II (HLA-DP, DQ & DR) molecules are expressed on dendritic cells, monocytes, macrophages, and myeloid cells. MHC Class II molecules are heterodimers of polymorphic transmembrane α and β chains and generally bind exogenously derived peptides of about 10-17 amino acids. MHC Class II molecules interact with the T cell receptor on CD4⁺ T cells. Antibody TDR31.1 recognizes a monomorphic class II β chain epitope.

References: T.A. de Kretser, et al, (1982) Eur J Immunol **12**: 214-221. R. Busch & J.B. Rothbard, (1990) J Immunol Methods **134**: 1-22. K.W. Wachterpfennig & J.L. Strominger, (1995) J Exp Med **181**:161-168.

STORAGE CONDITIONS: Store at 2 - 5°C. Do not freeze! Protect from light.

PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 500 mM Potassium Chloride, 150mM NaCl, 15% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Protein A purified antibody from tissue culture supernatant was conjugated to cross-linked Allophycocyanin through a sulfo-ester linkage. Unconjugated antibody was removed using size exclusion chromatography. Antibody conjugate is at approximately 0.5 mg/ml with an A₆₅₀/A₂₈₀ ratio of 1.64.

PERFORMANCE: Five x 10⁵ ficoll prepared human peripheral blood mononuclear cells per tube were washed and pre incubated 5 minutes with 20 µl of 300 µg/ml human IgG to block nonspecific binding after which they were incubated 45 minutes on ice with 80 µl of anti-MHC Class II/APC at a 1:50 dilution (10µg/ml). Cells were washed three times, fixed and analyzed by FACS using a lymphoid gate. An 18% sub population of the cells stained positive with a mean shift of 1.8 log₁₀ fluorescent units when compared to a buffer control. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-MHC Class II antibody (Catalog #131-020).

* Research Use Only. Not for use in Diagnostic procedures

