

PERFORMANCE DATA SHEET

1937

Monoclonal anti-human MHC Class I (HLA-A, B and C)/Biotin*

mAb name/Clone: 3F10

Isotype: Mouse IgG2a

Immunogen: Human HSB-2 T cell line

CATALOG#: 121-030

QUANTITY: 100 µg

CONCENTRATION: 1.0 mg/ml

INFORMATION: Human MHC Class I (HLA-A, B & C) molecules are expressed on nearly all nucleated cells. MHC Class I molecules consist of heterodimers of a highly polymorphic transmembrane α chain and an invariant β chain. MHC Class I molecules bind to endogenously synthesized peptides of about 8-10 amino acids which are presented to CD8⁺ T cells. Recent evidence now indicates exogenously derived peptides are also presented by MHC Class I molecules. Antibody 3F10 recognizes a monomorphic Class I epitope on the α chain.

References: G.S. Eisenbarth, et al, (1980) J Immunol **124**: 1237-1244. P.J. Bjorkman & P. Parham, (1990) Annu Rev Biochem **59**: 253-288. L.D. Barber & P. Parham, (1994) J Exp Med **180**: 1191-1194. K.L. Rock, (1996) Immunol Today **17**: 131-137.

STORAGE CONDITIONS: Store at 2 - 5°C. Freeze/thawing not recommended.

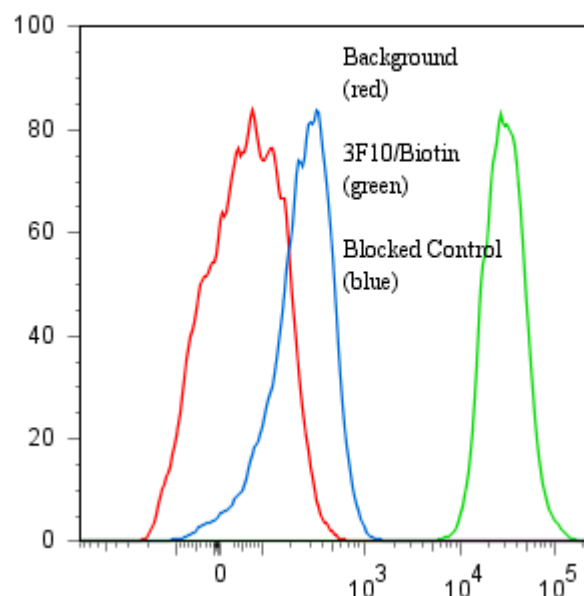
PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: _____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Antibody from (low FBS containing) tissue culture supernatant was Protein A purified to >95% mouse immunoglobulin by SDS-PAGE (<1% bovine immunoglobulin), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

PERFORMANCE: Five x 10⁵ ficoll prepared peripheral blood mononuclear cells (PBMC) were washed and incubated 45 minutes on ice with 80 µl of anti-MHC Class I/Biotin at 10 µg/ml. Cells were washed twice and incubated with 2^o reagent Streptavidin/R-Phycoerythrin (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 2.7 log₁₀ fluorescent units when compared to a Mouse IgG2a/Biotin negative control (Catalog # 281-030) at a similar concentration. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-MHC Class I antibody (Catalog #121-020).

Binding of anti-MHC Class I/Biotin + SA/PE to human PBL



* **Research Use Only. Not for use in Diagnostic procedures.**