

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the human major histocompatibility complex (MHC) class I, HLA-A, B, and C. Recognizes a non-polymorphic epitope shared among products of the HLA-A, B, and C loci and immunoprecipitates both the HLA molecule and beta 2-Microglobulin.
Source	Monoclonal Mouse IgG _{2B} Clone # 1069511
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Membranes from human tonsillar lymphocytes
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was HLA Class I in PBMC cell line.
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PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

HLA-A, B, and C are approximately 45 kDa transmembrane glycoproteins in the major histocompatibility complex 1 (MHC I) family. They contain three alpha domains in their extracellular regions. HLA molecules are expressed on nearly all nucleated cells in association with the 12 kDa beta 2-Microglobulin. This complex binds peptides derived from pathogenic cytosolic or extracellular proteins such as viral or microbial proteins. It presents these peptides on the cell surface for recognition by the T cell receptor on CD8+ cytotoxic T cells. The activated cytotoxic T cell then kills the presenting cell. Mismatched MHC I alleles between a host and a donor lead to transplant rejection.

References:

1. Barnstable, C.J. *et al.* (1978) Cell **14**:9.

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