

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 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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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