

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD5 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 205919
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD5 Arg25-Asn371 Accession # P06127
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human CD5 under non-reducing conditions only
Agonist Activity	1.5-6 µg/mL	See Below
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Agonist Activity</p> <p>Human CD5 Antibody Enhances IL-2 Secretion in Human T Cells. Human CD5 Monoclonal Antibody enhances IL-2 secretion in human T cells in the presence of sub-optimal amounts of Human CD3ε Monoclonal Antibody (Catalog # MAB100) and Human CD28 Monoclonal Antibody (Catalog # MAB342), in a dose-dependent manner, as measured using the Quantikine Human IL-2 ELISA Kit (Catalog # D2050). The ED₅₀ for this effect is typically 1.5-6 µg/mL.</p>	<p>Flow Cytometry</p> <p>Detection of CD5 in Human Blood Lymphocytes by Flow Cytometry. Human peripheral blood lymphocytes were stained with Mouse Anti-Human CD5 Monoclonal Antibody (Catalog # MAB1636, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.</p>
--	---

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD5, also known as Leu-1, is a type I transmembrane protein belonging to the scavenger receptor cysteine-rich (SRCR) superfamily. It is expressed on thymocytes, T cells and the B1a subpopulation of B cells. CD5 binds the C-type lectin, CD72, and modulates signaling through the antigen receptors on T and B cells. CD5 has been shown to provide either positive or negative co-stimulatory signals depending on cell type to regulate immune responses.

References:

1. Ledbetter, J.A. *et al.* (1985) J. Immunol. **135**:2331.
2. Damle, N.K. *et al.* (1988) J. Immunol. **140**:1753.