InnoCyto Inc.
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

Technical Data Sheet

FITC Anti-Mouse/human CD45R/B220

Catalog Number: 200909, 200910
Size: 25 tests, 100 tests
Target Name: CD45R, B220
Regulatory Status: RUO

Product Details

Clone: RA3-6B2
Application: FC
Reactivity: Human, Mouse
Format: FITC
Isotype: Rat IgG2a
Antibody Type: Monoclonal
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
Protein Concentration: Supplied at a lot-specific concentration.
Storage and Handling: The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Recommended Usage: For flow cytometric staining, it is recommended to use 5 uL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application.
Excitation Laser: Blue Laser (488 nm)

Background Information

CD45R, also known as B220, is an isoform of CD45 (PTPRC), a member of the protein tyrosine phosphatase (PTP) family. With a molecular weight of approximately 180–240 kDa, CD45R is a transmembrane glycoprotein expressed on B cells at all developmental stages, as well as on activated B cells, subsets of T and NK cells, and certain abnormal T cell populations involved in systemic autoimmunity in MRL-Faslpr and MRL-Fasgld mice. Structurally, CD45R consists of an extracellular domain, a single transmembrane region, and two tandem intracytoplasmic catalytic domains. Functionally, CD45R plays a critical role in T cell receptor (TCR) and B cell receptor (BCR) signaling by regulating Src-family kinases, which are essential for lymphocyte activation and development. The primary ligands for CD45 include galectin-1, CD2, CD3, and CD4. CD45R is widely used as a pan-B cell marker, though CD19 may provide greater specificity for B cells.

Product Data

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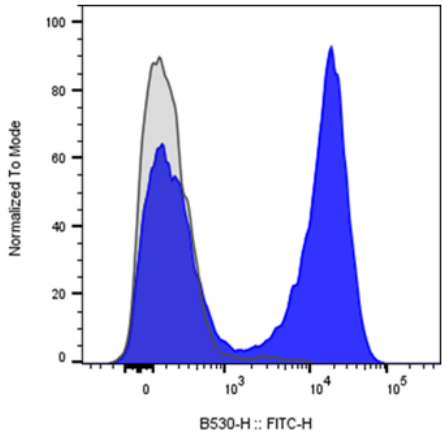

Mouse splenocytes stained with FITC Anti-mouse/human CD45R_B220 clone RA3-6B2 (blue histogram) or an isotype control (gray histogram).