

## Technical Data Sheet

### FITC Anti-Human CD298

**Catalog Number:** 109107, 109108

**Size:** 25 tests, 100 tests

**Target Name:** CD298, ATPB-3, Na, K-ATPase beta-3 polypeptide

**Regulatory Status:** RUO

#### Product Details

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**Clone:** LNH-94

**Application:** FC

**Reactivity:** Human

**Format:** FITC

**Isotype:** Mouse IgG1

**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 µL 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)

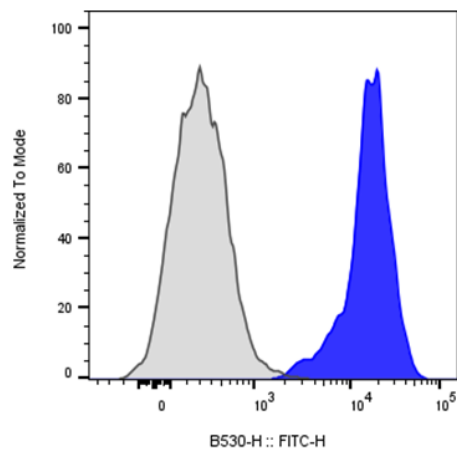
#### Background Information

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CD298, also known as the sodium/potassium-transporting ATPase subunit beta-3 or ATP1B3, is a 42 kDa type II transmembrane glycoprotein encoded by the ATP1B3 gene in humans. It is part of the Na<sup>+</sup>/K<sup>+</sup>-ATPase enzyme complex, which consists of a catalytic  $\alpha$  subunit and a regulatory  $\beta$  subunit. CD298 belongs to the family of Na<sup>+</sup>/K<sup>+</sup> and H<sup>+</sup>/K<sup>+</sup> ATPase beta chain proteins and specifically to the Na<sup>+</sup>/K<sup>+</sup>-ATPase subfamily. This integral plasma membrane protein is essential for establishing and maintaining the electrochemical gradients of sodium and potassium ions across the cell membrane—gradients that are crucial for osmoregulation, sodium-coupled transport of various molecules, and the electrical excitability of nerve and muscle cells. The  $\beta$ 3 subunit plays a regulatory role by assisting in the proper assembly and membrane localization of the  $\alpha\beta$  heterodimer complex. CD298 is broadly expressed across various tissues, including all leukocyte populations.

#### Product Data

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Human peripheral blood lymphocytes stained with FITC Anti-Human CD298 clone LNH-94 (blue histogram) or an isotype control (gray histogram).