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## APC Mouse Anti-Human CD38 Monoclonal Antibody

**CLX42APC**

**Lot:**

**Clone:** HIT2

**Isotype:** Mouse IgG1

**Specificity:** The antibody HIT2 reacts with CD38 (T10), a 45 kDa type II transmembrane glycoprotein strongly expressed mainly on plasma cells and activated T and B lymphocytes; it is an antigenic marker of lymphoid cells. HLDA III; WS Code T 155

**Immunogen:** Human thymocytes in foetus

**Species Reactivity:** Human

**Preparation:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

**Storage Buffer:** The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.

**Storage / Stability:** Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.

**Usage:** The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent/100 µl of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

**Background:** CD38 (NAD<sup>+</sup> glycohydrolase) is a type II transmembrane glycoprotein able to induce activation, proliferation and differentiation of mature lymphocytes and mediate apoptosis of myeloid and lymphoid progenitor cells. Another role of CD38 is provided by enzymatic activity of its extracellular part. CD38 acts as NAD<sup>+</sup> glycohydrolase converting NAD<sup>+</sup> into ADP-ribose, as ADP-ribosyl cyclase producing cADPR and as cADPR hydrolase, thus affecting levels of calcium-mobilizing metabolites. ADPR produced by CD38 serves as an important second messenger of neutrophil and dendritic cell migration.

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**Laboratory Reagent For Research Use Only.**