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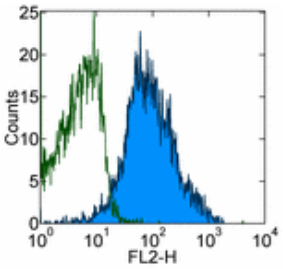
Anti-Human CD230 (PrP) Purified

Catalog Number: 14-9230
Also Known As:Prion protein
RUO: For Research Use Only



Staining of normal human peripheral blood cells with 0.25 µg of Purified Mouse IgG1 κ Isotype Control (cat. 14-4714) (open histogram) or 0.25 µg of Anti-Human CD230 (PrP) Purified (filled histogram) followed by F(ab')2 Anti-Mouse IgG PE (cat. 12-4012). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD230 (PrP) Purified
REF Catalog Number: 14-9230
Clone: 4D5
Concentration: 0.5 mg/ml
Host/Isotype: Mouse IgG1, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

CD230 (prion protein; PrP^C) is a 35 kD glycoprotein, attached to the cell surface via a GPI-anchor. While the function of CD230 is unclear, prion protein has been the focus of research based on its involvement in transmissible spongiform encephalopathies (TSE), including Creutzfeld-Jakob disease in humans. CD230 undergoes a conformational change in which the cellular PrP^C form is converted to the scrapie PrP^{Sc} form. This conversion is essential for the infectiousness of prion-based diseases. CD230 is predominantly expressed on the surface of lymphocytes and monocytes, with weak expression on granulocytes and erythrocytes. In platelets, CD230 is expressed primarily intracellularly, and is upregulated to the surface upon activation.

Applications Reported

This 4D5 antibody has been reported for use in flow cytometric analysis and immunoprecipitation. The 4D5 antibody has also been found useful for immunoblotting, recognizing a protein of approximately 35 kD under non-reducing conditions.

Applications Tested

The 4D5 antibody has been tested by flow cytometric analysis of human peripheral blood leukocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Durig J, Giese A, Schulz-Schaeffer W, Rosenthal C, Schmucker U, Bieschke J, Duhrsen U, Kretzschmar HA. Differential constitutive and activation-dependent expression of prion protein in human peripheral blood leucocytes. Br J Haematol. 2000 Mar;108(3):488-95. (PubMed)

Barclay GR, Hope J, Birkett CR, Turner ML. Distribution of cell-associated prion protein in normal adult blood determined by flow cytometry. Br J Haematol. 1999 Dec;107(4):804-14. (PubMed)

Holada K, Simak J, Risitano AM, Maciejewski J, Young NS, Vostal JG. Activated platelets of patients with paroxysmal nocturnal hemoglobinuria express cellular prion protein. Blood. 2002 Jul 1;100(1):341-3. (PubMed)

Related Products

11-4011 Anti-Mouse IgG FITC
11-4317 Streptavidin FITC
12-4317 Streptavidin PE
13-4013 Anti-Mouse IgG Biotin (Polyclonal)
14-4714 Mouse IgG1 K Isotype Control Purified

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