

Monoclonal antibody against human CD45

Product Nos. ADG5055 and ADG5055L

Description

CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing; these isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. Besides the role in immunoreceptor signaling, CD45 is important in promoting cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis.

Properties

The monoclonal antibody ADG5055/L (clone HI30) is a murine monoclonal antibody, subclass IgG₁. The antibody has been purified from ascites using protein-A affinity chromatography, Purity > 95% (by SDS-PAGE).

The antibody reacts with all alternative forms of human CD45 antigen (Leukocyte Common Antigen), a 180-220 kDa single chain type I transmembrane protein expressed at high level on all cells of hematopoietic origin, except erythrocytes and platelets and non-hematopoietic tissues and cells. CD45 is critically required for T and B cell antigen receptor-mediated activation.

Presentation

Vial containing 100 µg /100 µl (ADG5055) or 300 µg/ 300 µl (ADG5055L) of purified antibody PBS containing 0.09 % sodium azide (pH 7.2) pH 7.2. The IgG concentration is 1 mg/ml. Spin the vial briefly before opening.

Storage and Stability

Store at 4 °C. For long-term storage aliquot and store at -20°. It is recommended to avoid freeze-thaw cycles. The reagent is stable until the expiry date stated on the vial label.

Applications

Flow cytometry
Immunoprecipitation

References

Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York
Kishihara K, *et al.* 1993. *Cell* 74:143.
Esser M, *et al.* 2001. *J. Virol.* 75:6173. (WB)
Friedman T, *et al.* 1999. *J. Immunol.* 162:5256. (IHC)
Rees LE, *et al.* 2003. *Clin. Exp. Immunol.* 134:497. (IF)

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