

anti-human CD7

Monoclonal Antibody HIT7 to CD7 (Human)

Cat-No: **21810071**

100 µg in 100 µl

Clone: HIT7

Specificity: The antibody HIT7 reacts with CD7, a 40 kD type I single-chain transmembrane glycoprotein. It has been considered as one of the earliest and immature T cell markers and is expressed on all thymocytes, most mature T cells, B-lineage progenitors, NK cells, monocytes (weakly) and some stem cell leukemia capable of multilineage differentiation. CD7 antigen may be considered as a marker of undifferentiated hemopoietic cells capable of giving rise to T, B and myeloid lineage cells of T lymphoid leukemia and small party cells of acute myeloid leukemia (AML). Mature B lymphocytes and granulocytes do not express CD7 antigen.

Isotype subclass: Mouse IgG1

Form: Purified by protein G affinity chromatography

Purity: > 95% (by SDS-PAGE).

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 0.09 % sodium azide (pH 7.2).

Expiration date: The reagent is stable until the expiry date stated on the vial label

Storage conditions: Store at 4 °C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Application: Flow Cytometry

References: Leucocyte Typing V. Schlossmann S. et al. (Eds.), White Cell Differentiation Antigens, Garland Publishing New York (1995).

Background: **CD7**, also known as gp40, is a member of the immunoglobulin superfamily found on T cells, NK cells, thymocytes, hematopoietic progenitors, and monocytes (weakly). CD7 is also expressed on acute lymphocytic leukemia (ALL). CD7 crosslinking induces a calcium flux in T lymphocytes, presumably as a result of cytoplasmic domain association with PI3-kinase. CD7 co-stimulation can induce cytokine secretion and modulate cellular adhesion. A ligand of CD7, epithelial cell secreted protein K12, is produced in thymus to regulate thymocyte signaling and cytokine release. In lung microvascular endothelial cells CD7 serves as an IgM Fc receptor. Expression of CD7 is an important marker used in leukemia diagnostics.

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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