Anti-Human CD73 (AD-2)

	REF	Σ	
PE	73PE-100T	100 test	RUO

1. PRODUCT DESCRIPTION

Clone: AD-2

Isotype: Mouse / IgG1, kappa

Tested application: flow cytometry

Immunogen: human pre-B leukemia cell line

Species reactivity: Human

Storage instruction: store in the dark at 2-8 °C

Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN 3).

Recommended usage: Immunostep's CD73-PE, clone AD2, is a monoclonal antibody intended for the identification and analysis of human cells expressing CD73 (ecto-5'- nucleotidase) by flow cytometry. CD73 is a GPI-anchored surface enzyme involved in purinergic signaling and is expressed on subsets of T and B lymphocytes, mesenchymal stem cells, endothelial cells, epithelial cells and follicular dendritic cells. This reagent is suitable for immunophenotyping, functional studies, and research applications related to immune regulation, stem cell biology, and tumor microenvironment characterization. This antibody is designed for use in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10 6 cells.

Presentation: liquid

Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma.

Purification: Affinity chromatography.

2. ANTIGEN DETAILS

Large description: CD73, also known as ecto-5'- nucleotidase (NT5E), is a 70 kDa glycosylphosphatidylinositol (GPI)-anchored cell surface enzyme that catalyzes the dephosphorylation of extracellular adenosine monophosphate (AMP) to adenosine. It is a key regulator of purinergic signaling and plays a critical role in modulating immune responses, inflammation, and tissue regeneration 1 .

CD73 is expressed on subsets of T and B lymphocytes, follicular dendritic cells, endothelial cells, epithelial cells, and mesenchymal stem cells. Its expression increases during lymphocyte maturation and is particularly enriched on regulatory T cells (Tregs). Functionally, CD73 contributes to the generation of extracellular adenosine, which exerts immunosuppressive effects by engaging adenosine receptors on various immune cells 3 .

In addition to its enzymatic role, CD73 has been implicated in mediating costimulatory signals during T cell activation and in promoting lymphocyte adhesion to endothelial and follicular dendritic cells. These properties make CD73 a relevant marker in immunology, oncology, and stem cell biology. It is frequently studied in the context of tumor immune evasion, where its expression on cancer cells and tumor-infiltrating lymphocytes contributes to the creation of an immunosuppressive microenvironment 2.

The AD2 monoclonal antibody specifically recognizes human CD73 and is widely used in flow cytometry for immunophenotyping and functional studies. It has been validated in multiple peer-reviewed studies for its ability to detect CD73 expression and function in both normal and pathological conditions.

Other Names: NT5E, 5'-nucleotidase, 5'-NT, Ecto-5'- nucleotidase, eN, eNT, NT, NT5, E5NT

Gene ID: 4907

UniProt ID: Q6NZX3

Molecular weight: CD73 is a glycosylphosphatidylinositol (GPI)-anchored glycoprotein with an approximate molecular weight of 70 kDa under reducing conditions. Due to glycosylation and its GPI anchor, the apparent molecular weight may vary slightly depending on the detection method and cell type.

For research use only, not for diagnostic procedures.
Please, refer to www.immunostep.com technical support for more information.

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. REFERENCES

1. Liao J, Al Shahrani M, Al-Habib M, Tanaka T, Huang GT. Cells isolated from inflamed periapical tissue express mesenchymal stem cell markers and are highly osteogenic. J Endod. 2011 Sep;37(9):1217-24. doi: 10.1016/j.joen.2011.05.022. Epub 2011 Jul 16. PMID: 21846537; PMCID: PMC3499979.

2. Bach N, Winzer R, Tolosa E, Fiedler W, Brauneck F. The Clinical Significance of CD73 in Cancer. Int J Mol Sci. 2023 Jul 21;24(14):11759. doi: 10.3390/ijms241411759. PMID: 37511518; PMCID: PMC10380759.

3. Resta R, Yamashita Y, Thompson LF. Ecto-enzyme and signaling functions of lymphocyte CD73. Immunol Rev. 1998 Feb;161:95-109. doi: 10.1111/j.1600-065x.1998.tb01574.x. PMID: 9553767.

5. EXPLANATION OF SYMBOLS

	Form
REF	Catalog reference
Σ	Contains sufficient for > test
	Quantity per test
	Regulatory Status
RUO	Research Use Only
[A]	Concentration
	Manufacturer

6. MANUFACTURED BY:

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