

ProteinFind® Anti-CD73 Mouse Monoclonal Antibody

Please read the datasheet carefully prior to use.

Cat. No. HS902

Version No. Version 2.0

Storage: PBS (pH7.4), 0.05% ProClin 300, 50% Glycerol; at -20°C for two years, avoid repeated freeze-thawing.

Description

CD73, also known as Ecto-5' -Nucleotidase (NT5E), is a transmembrane glycoprotein that hydrolyzes extracellular nucleotides into membrane-permeable nucleosides by anchoring the cell membrane with Glycosylphosphatidylinositol (GPI)^[1]. CD73 is expressed in lymphocytes, mesenchymal stem cells, follicle dendritic cells, endothelial cells and epithelial cells subgroups, which synergistically stimulate T cells activation and regulate the adhesion of lymphocytes to endothelial cells^[2-5]. CD73 is used as a marker of lymphocyte differentiation, and as a result, CD73 deficiency can be found in various immune deficiency diseases^[4, 6]. This product is the mouse anti-human CD73 monoclonal antibody, which is used for the specific detection of human CD73 by WB, IP, IF and FC.

Species Reactivity: Human (the results of species reactivity were determined by WB experiment)

Clone Number: Trans-1H4

Antibody Subtype: Mouse IgG1

Immunogen

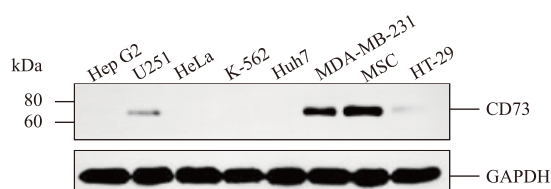
- Recombinant human CD73 partial extracellular domain
- Entrez Gene ID: 4907
- UniProt ID: P21589

Applicable Experiments and Dilution

- WB: 1:1000 dilution is recommended.
- IP: 1:100 dilution is recommended.
- IF: 1:100 dilution is recommended.
- FC: 1:100 dilution is recommended.

Positive Control Cell Line: MDA-MB-231 cells

★ **Advanced Validation:** The antibody was validated by the relative expression of protein levels in different cell lines.

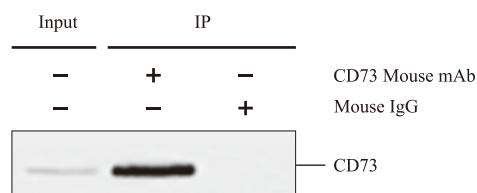


WB: ProteinFind® Anti-CD73 Mouse Monoclonal Antibody was used to detect the expression of CD73 in HepG2 cells (negative cells), U251 cells (positive cells), HeLa cells (negative cells), K-562 cells (negative cells), Huh7 cells (negative cells), MDA-MB-231 cells (positive cells), MSC cells (positive cells) and HT-29 cells (positive cells).

Dilution ratio of primary antibody: 1:1000

Predicted molecular weight: 63 kDa

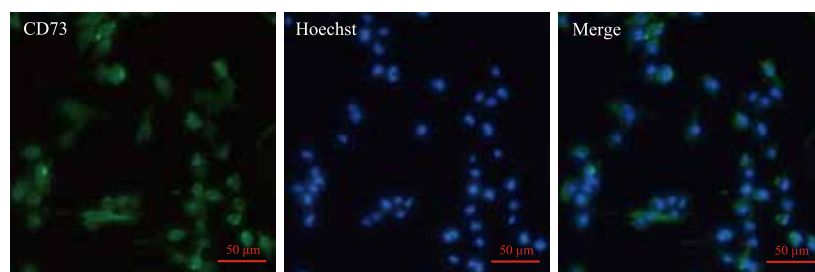
Actual molecular weight: 70 kDa



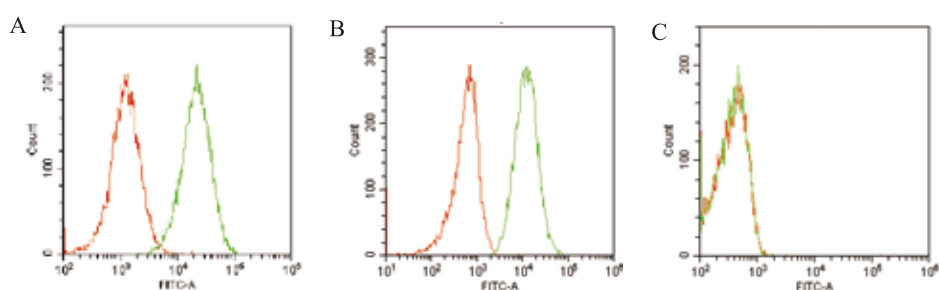
IP: ProteinFind® Anti-CD73 Mouse Monoclonal Antibody for IP detection of MDA-MB-231 cell lysate. 10% Input was used in the first lane, ProteinFind® Anti-CD73 Mouse Monoclonal Antibody was used in the second lane, and mouse IgG negative control was used in the third lane.

Antibody dilution ratio: 1:100





IF: *ProteinFind*[®] Anti-CD73 Mouse Monoclonal Antibody (green) for detection of CD73 localization in MDA-MB-231 cells. Hoechst is used to label the nucleus (blue).
Dilution ratio of primary antibody: 1:100



FC: *ProteinFind*[®] Anti-CD73 Mouse Monoclonal Antibody (green) for FC detection of MDA-MB-231 cells (positive cells) (figure A), MSC (positive cells) (figure B) and HeLa cells (negative cells) (figure C).
The negative control was Mouse IgG1 Isotype Control (red).
Dilution ratio of primary antibody: 1:100

References

- [1] Le Hir M, Kaissling B. Distribution and regulation of renal ecto-5'-nucleotidase: implications for physiological functions of adenosine [J]. *Am J Physiol.* 1993, 264(3 Pt 2): F377-87.
- [2] Minor M, Alcedo KP, Battaglia RA, et al. Cell type- and tissue-specific functions of ecto-5'-nucleotidase (CD73) [J]. *Am J Physiol Cell Physiol.* 2019, 317(6): C1079-C1092.
- [3] Tan K, Zhu H, Zhang J, et al. CD73 Expression on Mesenchymal Stem Cells Dictates the Reparative Properties via Its Anti-Inflammatory Activity [J]. *Stem Cells Int.* 2019: 8717694.
- [4] Airas L, Jalkanen S. CD73 mediates adhesion of B cells to follicular dendritic cells [J]. *Blood.* 1996, 88(5): 1755-64.
- [5] Airas L, Hellman J, Salmi M, et al. CD73 is involved in lymphocyte binding to the endothelium: characterization of lymphocyte-vascular adhesion protein 2 identifies it as CD73 [J]. *J Exp Med.* 1995, 182(5): 1603-8.
- [6] Kim E-S, Ackermann C, Tóth I, et al. Down-regulation of CD73 on B cells of patients with viremic HIV correlates with B cell activation and disease progression [J]. *Journal of Leukocyte Biology.* 2017, 101(5): 1263-71.

For research use only, not for clinical diagnosis.

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