

CD73 (H-300): sc-25603

BACKGROUND

CD73 (also designated ecto-5'-nucleotidase, E5NT, NT, NT5, NTE, eN and eNT) is a glycosyl-phosphatidylinositol (GPI)-anchored adhesion protein that catalyzes the dephosphorylation of extracellular purine and pyrimidine nucleotides to their corresponding bioactive nucleosides. CD73 is a dimer of two identical subunits that depends on GPI to link with the external face of the plasma membrane. Similar to other GPI-anchored proteins, CD73 mediates co-stimulatory signals in T cell activation. CD73 has few structural variants, yet elicits diverse biological function through differential regulation in endothelial cells (EC), subpopulations of B and T cells, germinal center follicular dendritic cells and on thymic medullary reticular fibroblasts. For example, IgG mediated neutralization of CD73 interferes with lymphocyte adhesion to EC, and blocks aggregation of germinal center B cells and follicular dendritic cells. Furthermore, IgG-mediated targeting of lymphocyte CD73, but not of endothelial cell CD73, causes shedding of CD73 and tyrosine phosphorylation of proteins.

REFERENCES

1. Yamashita, Y., et al. 1998. CD73 expression and Fyn-dependent signaling on murine lymphocytes. *Eur. J. Immunol.* 28: 2981-2990.
2. Kalsi, K., et al. 2002. Regulation of ecto-5'-nucleotidase by TNF α in human endothelial cells. *Mol. Cell. Biochem.* 232: 113-119.

CHROMOSOMAL LOCATION

Genetic locus: NT5E (human) mapping to 6q14.3; Nt5e (mouse) mapping to 9 E3.1.

SOURCE

CD73 (H-300) is a rabbit polyclonal antibody raised against amino acids 275-574 of CD73 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CD73 (H-300) is recommended for detection of CD73 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). CD73 (H-300) is also recommended for detection of CD73 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CD73 siRNA (h): sc-42862, CD73 siRNA (m): sc-42863, CD73 shRNA Plasmid (h): sc-42862-SH, CD73 shRNA Plasmid (m): sc-42863-SH, CD73 shRNA (h) Lentiviral Particles: sc-42862-V and CD73 shRNA (m) Lentiviral Particles: sc-42863-V.

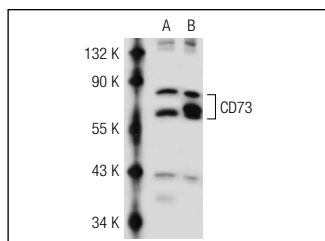
Molecular Weight of CD73: 71 kDa.

Positive Controls: CD73 (h2): 293T Lysate: sc-117055, K-562 whole cell lysate: sc-2203 or JEG-3 whole cell lysate: sc-364255.

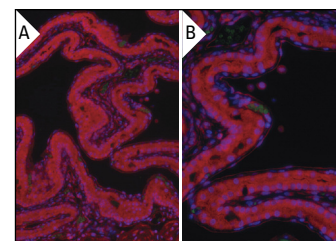
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



CD73 (H-300): sc-25603. Western blot analysis of CD73 expression in non-transfected: sc-117752 (A) and human CD73 transfected: sc-117055 (B) 293T whole cell lysates.



CD73 (H-300): sc-25603. Immunoperoxidase staining of formalin fixed paraffin embedded C57BL/6 mouse placenta (A, B) showing cytoplasmic staining. Kindly provided by Jenna Tabor-Godwin, PhD Candidate and Dr. Ralph Feuer, San Diego State University.

SELECT PRODUCT CITATIONS

1. Galateanu, B., et al. 2012. Layer-shaped alginate hydrogels enhance the biological performance of human adipose-derived stem cells. *BMC Biotechnol.* 12: 35.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **CD73 (D-12): sc-398260** or **CD73 (1E9): sc-32299**, our highly recommended monoclonal alternatives to CD73 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CD73 (D-12): sc-398260**.