

CD73 (C-20): sc-14684

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.

CHROMOSOMAL LOCATION

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

SOURCE

CD73 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CD73 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14684 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD73 (C-20) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)] and 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 (C-20) is also recommended for detection of CD73 in additional species, including canine.

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: K-562 whole cell lysate: sc-2203 or JEG-3 whole cell lysate.

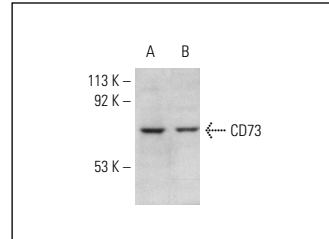
RESEARCH USE

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

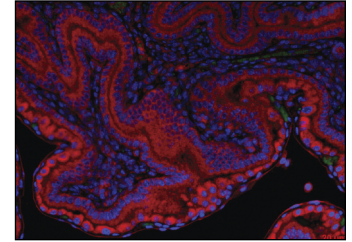
STORAGE

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

DATA



CD73 (C-20): sc-14684. Western blot analysis of CD73 expression in JEG-3 (A) and K-562 (B) whole cell lysate.



CD73 (C-20): sc-14684. Immunoperoxidase staining of formalin fixed paraffin embedded C57BL/6 mouse placenta showing cytoplasmic staining. Kindly provided by Jenna Tabor-Godwin, PhD Candidate and Dr. Ralph Feuer, San Diego State.

SELECT PRODUCT CITATIONS

- Periyasamy, S.M., et al. 2005. Salt loading induces redistribution of the plasmalemmal Na/K-ATPase in proximal tubule cells. *Kidney Int.* 67: 1868-1877.
- Reigada, D., et al. 2006. Stimulation of an α 1-adrenergic receptor down-regulates ecto-5' nucleotidase activity on the apical membrane of RPE cells. *Purinergic Signal.* 2: 499-507.
- Pochmann, D., et al. 2008. AMP hydrolysis in soluble and microsomal rat cardiac cell fractions: kinetic characterization and molecular identification of 5'-nucleotidase. *Biosci. Rep.* 28: 267-273.
- Stanojevic, I., et al. 2011. Ontogenetic profile of ecto-5'-nucleotidase in rat brain synaptic plasma membranes. *Int. J. Dev. Neurosci.* 29: 397-403.
- Cotomacci, G., et al. 2012. Thyroid hormones are involved in 5'-nucleotidase modulation in soluble fraction of cardiac tissue. *Life Sci.* 91: 137-142.
- Grkovic, I., et al. 2014. Developmental increase in ecto-5'-nucleotidase activity overlaps with appearance of two immunologically distinct enzyme isoforms in rat hippocampal synaptic plasma membranes. *J. Mol. Neurosci.* 54: 109-118.

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 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD73 (D-12): sc-398260**.