

Mouse Monoclonal Antibody to Human 5'-Nucleotidase, Ecto

Cat. No. CAB11589MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human 5-Nucleotidase, Ecto
Species	Human
Source	Mouse
Antigen Description	Mouse 5-nucleotidase, also known as NT5E, NTE, and CD73, is a cell membrane protein which belongs to the 5-nucleotidase family. CD73 is a glycosyl phosphatidylinositol (GPI) anchored purine salvage enzyme expressed on the surface of human T and B lymphocytes. CD73 catalyzes the conversion of purine and pyrimidine ribo- and deoxyribonucleoside monophosphates to the corresponding nucleosides. CD73 serves as a costimulatory molecule in activating T cells. CD73 generated adenosine functions in cell signalling in many physiologic systems, including intestinal epithelium, ischemic myocardium, and cholinergic synapses. CD73 might mediate lymphocyte-stromal cell interactions or condition the local microenvironment to facilitate lymphocyte development and/or function. In CD73-depleted cells, surface levels of the leukocyte adhesion molecules ICAM-1, VCAM-1 and E-selectin increase. CD73 produces extracellular adenosine, which then acts on G protein-coupled purigenic receptors to induce cellular responses. CD73 has also been reported to regulate expression of pro-inflammatory molecules in mouse endothelium.
Specificity	Human CD73 / NT5E. No cross-reactivity with human cell lysate (293 cell line) in ELISA.

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Immunogen	Recombinant Human CD73 / NT5E Protein
Isotype	Mouse IgG2b
Clone	9E11H8
Applications	Western blot; ELISA
Dilution	Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect NT5E-His? in WB. Using a DAB detection system, the detection limit for NT5E-His? is approximately 4 ng/lane under non-reducing conditions and reducing conditions. Direct ELISA: This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect NT5E-His. The detection limit for NT5E-His is approximately 0.31 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human CD73 / NT5E. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name NT5E 5-nucleotidase, ecto (CD73) [Homo sapiens]

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Official Symbol	NT5E
Synonyms	NT5E; 5-nucleotidase, ecto (CD73); 5 nucleotidase (CD73) , NT5; 5-nucleotidase; CD73; eN; eNT; 5-NT; ecto-5-nucleotidase; Purine 5-Prime-Nucleotidase; NT; NT5; NTE; E5NT;
Gene ID	4907
mRNA Refseq	NM_001204813
Protein Refseq	NP_001191742
MIM	129190
UniProt ID	P21589
Chromosome Location	6q14-q21
Pathway	HIF-1-alpha transcription factor network, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem; Nicotinate and nicotinamide metabolism, organism-specific biosystem; Nicotinate and nicotinamide metabolism, conserved biosystem; Purine catabolism, organism-specific biosystem;
Function	5-nucleotidase activity; ferrous iron binding; hydrolase activity, acting on ester bonds; metal ion binding; nucleotide binding;