

DESCRIPTION

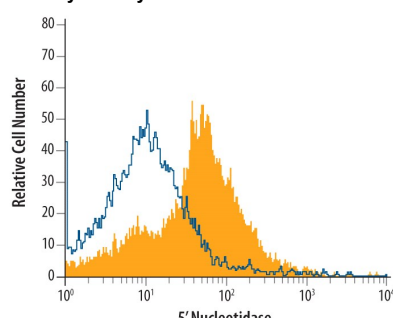
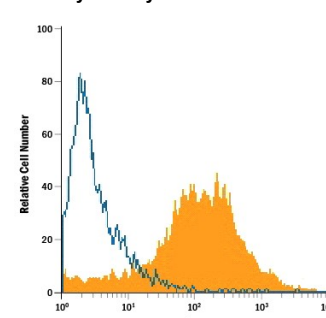
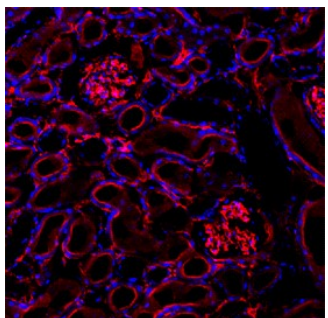
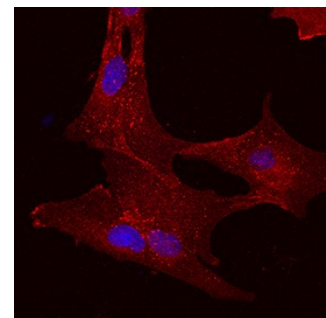
Species Reactivity	Mouse/Porcine
Specificity	Detects mouse 5'-Nucleotidase/CD73 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse 5'-Nucleotidase/CD73 Trp29-Lys549 Accession # Q61503
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse 5'-Nucleotidase/CD73 (Catalog # 4488-EN)
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>  <p>Detection of 5'-Nucleotidase/CD73 in Mouse CD4⁺ Splenocytes by Flow Cytometry. Mouse CD4⁺ splenocytes was stained with Sheep Anti-Mouse/Porcine 5'-Nucleotidase/CD73 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4488, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by NorthernLights™ 637-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # NL011).</p>	<p>Flow Cytometry</p>  <p>Detection of 5'-Nucleotidase/CD73 in Porcine Mesenchymal Stem Cells by Flow Cytometry. Porcine mesenchymal stem cells were stained with Sheep Anti-Mouse/Porcine 5'-Nucleotidase/CD73 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4488, filled histogram) or isotype control antibody (Catalog # 5-001-A, open histogram), followed by Phycoerythrin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0126).</p>
<p>Immunohistochemistry</p>  <p>5'-Nucleotidase/CD73 in Mouse Kidney. 5'-Nucleotidase/CD73 was detected in perfusion fixed frozen sections of mouse kidney using Sheep Anti-Mouse/Porcine 5'-Nucleotidase/CD73 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4488) at 15 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to glomeruli and convoluted tubules. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>	<p>Immunocytochemistry</p>  <p>5'-Nucleotidase/CD73 in Porcine Mesenchymal Stem Cells. 5'-Nucleotidase/CD73 was detected in immersion fixed porcine mesenchymal stem cells using Sheep Anti-Mouse/Porcine 5'-Nucleotidase/CD73 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4488) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Stem Cells on Coverslips.</p>

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD73, an ecto-5'-Nucleotidase, is an ectoenzyme that is attached to the cell membrane by a glycosyl phosphatidylinositol anchor (1, 2). The enzyme is expressed by most cell types. The 5'-Nucleotidase activity of CD73 converts extracellular nucleoside-5'-monophosphates to nucleosides. CD73 is one of several enzymes responsible for the production of extracellular adenosine, a signaling molecule that is involved in responses to inflammation and tissue injury (3).

References:

1. Resta, R. *et al.* (1993) *Gene* **133**:171.
2. Resta, R. *et al.* (1998) *Immunol. Rev.* **161**:95.
3. Pilcher, M. *et al.* (2003) *J. Biol. Chem.* **278**:13468.