

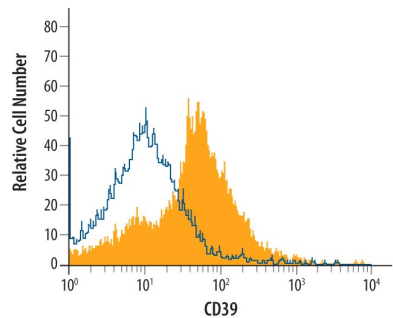
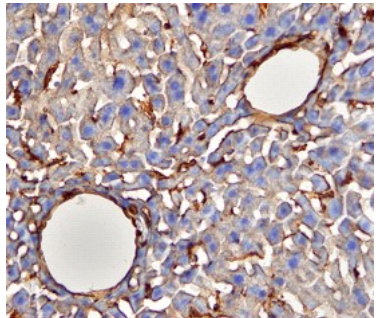
DESCRIPTION	
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD39/ENTPD1 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) CD39 and less than 1% cross-reactivity with rhCD39L2, rhCD39L3 and recombinant mouse CD39L3.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CD39/ENTPD1 Thr38-Ile478 Accession # Q921Q6
<b>Formulation</b>	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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse CD39/ENTPD1 (Catalog # 4398-EN)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse CD39/ENTPD1 (Catalog # 4398-EN), see our available <a href="#">Western blot detection antibodies</a>
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

<p><b>Flow Cytometry</b></p> 	<p><b>Detection of CD39/ENTPD1 in Mouse Splenocytes by Flow Cytometry.</b> Mouse splenocytes were stained with Mouse CD39/ENTPD1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4398, 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><b>Immunohistochemistry</b></p>  <p><b>CD39/ENTPD1 in Mouse Liver.</b> CD39/ENTPD1 was detected in perfusion fixed frozen sections of mouse liver using Mouse CD39/ENTPD1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4398) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). View our protocol for <a href="#">Chromogenic IHC Staining of Frozen Tissue Sections</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Ectonucleoside triphosphate diphosphohydrolase-1 (NTPDase-1) is an integral membrane protein with an extracellular active site. Recombinant mouse NTPDase-1 was expressed as a protein lacking its N- and C-terminal transmembrane domains, resulting in the secretion of the soluble ectodomain. NTPDase-1 was originally described as CD39, a B lymphocyte cell surface marker (1), but it is also present on the surface of natural killer cells, T cells, and some endothelial cells (2). NTPDase-1 hydrolyzes the  $\beta$ - and  $\gamma$  phosphate residues of nucleotides, preferring ATP as the substrate. Through its hydrolysis of extracellular nucleotides, NTPDase-1 plays a role in the regulation of purinergic signaling (3). NTPDase-1 is involved in the processes of thromboregulation and vascular inflammation (4). The administration of soluble NTPDase-1 may have therapeutic applications for the treatment of some vascular and transplantation-associated diseases (5).

**References:**

1. Rowe, M. *et al.* (1982) *Int. J. Cancer* **29**:373.
2. Kansas, G.S. *et al.* (1991) *J. Immunol.* **146**:2235.
3. Kishore, B.K. *et al.* (2005) *Am. J. Physiol. Renal Physiol.* **288**:F1032.
4. Marcus, A.J. *et al.* (2005) *Semin. Thromb. Hemost.* **31**:234.
5. Robson, S.C. *et al.* (2005) *Semin. Thromb. Hemost.* **31**:217.