

**DESCRIPTION**

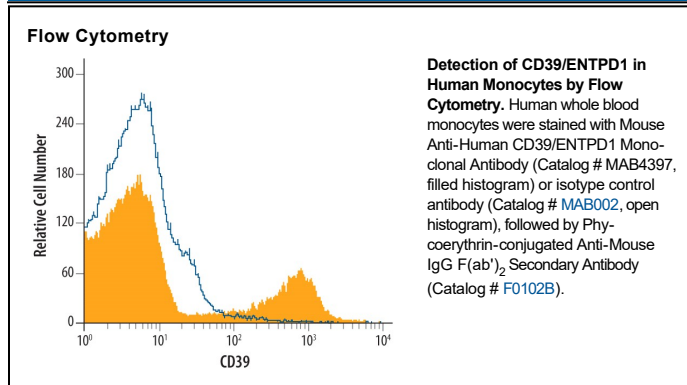
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human CD39/ENTPD1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse CD39, recombinant human CD39L2, 3, or 4 is observed.   |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 498403  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant human CD39/ENTPD1<br>Thr38-Val478<br>Accession # P49961   |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*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.

|                       | <b>Recommended Concentration</b>   | <b>Sample</b> |
|-----------------------|--|---------------|
| <b>Flow Cytometry</b> | 2.5 µg/10 <sup>6</sup> cells   | See Below     |
| <b>CyTOF-ready</b>    | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. |               |

**DATA**



**PREPARATION AND STORAGE**

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.5 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.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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. rhNTPDase-1 was expressed as a protein lacking its N- and C-terminal transmembrane domains, resulting in the secretion of the soluble rhNTPDase-1 ectodomain. NTPDase-1 was originally described as CD39, a B lymphocyte cell surface marker (2), but it is also present on the surface of natural killer cells, T cells, and some endothelial cells (3). NTPDase-1 hydrolyzes the β- and γ 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 (4). NTPDase-1 is involved in the processes of thrombo regulation and vascular inflammation (5). The administration of soluble NTPDase-1 may have therapeutic applications for the treatment of some vascular and transplantation-associated diseases (6).

**References:**

1. Maliszewski, C.R. *et al.* (1994) *J. Immunol.* **153**:3574.
2. Rowe, M. *et al.* (1982) *Int. J. Cancer* **29**:373.
3. Kansas, G.S. *et al.* (1991) *J. Immunol.* **146**:2235.
4. Kishore, B.K. *et al.* (2005) *Am. J. Physiol. Renal Physiol.* **288**:F1032.
5. Marcus, A.J. *et al.* (2005) *Semin. Thromb. Hemost.* **31**:234.
6. Robson, S.C. *et al.* (2005) *Semin. Thromb. Hemost.* **31**:217.