

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD39/ENTPD1 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human CD39 is observed and no cross-reactivity with recombinant mouse CD39L3 or recombinant human CD39L4 is observed.
Source	Monoclonal Rat IgG ₁ Clone # 495826
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD39/ENTPD1 Thr38-Ile478 Accession # AAH11278
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Mouse splenocytes

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Ectonucleoside triphosphate diphosphohydrolase-1 (NTPDase-1) is an integral membrane protein with an extracellular active site. 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 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 (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.

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