

DESCRIPTION

Species Reactivity	Human
Specificity	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.
Source	Monoclonal Mouse IgG ₁ Clone # 498403
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD39/ENTPD1 Thr38-Val478 Accession # P49961
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	Human whole blood monocytes

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. 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.

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