Mouse CD39/ENTPD1 Fluorescein-conjugated Antibody

Monoclonal Rat IgG_1 Clone # 495826

Catalog Number: FAB4398F

100 TESTS

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	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
Formulation	Supplied 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.

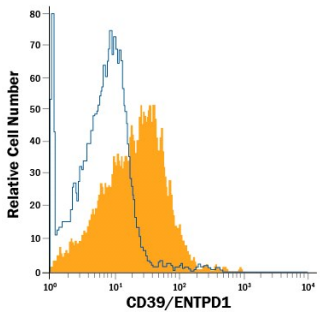
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of CD39/ENTPD1 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse CD39/ENTPD1 Fluorescein-conjugated Monoclonal Antibody (Catalog # FAB4398F, filled histogram) or isotype control antibody (Catalog # IC005F, open histogram). View our protocol for Staining Membrane-associated Proteins.

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.

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BACKGROUND

Ectonucleoside Triphosphate Diphosphohydrolase-1 (ENTPD1) is a 65-80 kDa, two-transmembrane glycoprotein that contains an N- and C-terminal cytoplasmic domain (1, 2). ENTPD1 was originally described as CD39, a B lymphocyte cell surface marker and is now known to also be present on the surface of endothelial cells, neutrophils, mast cells, macrophages, pancreatic acinar and duct cells, dendritic cells, sympathetic neuron axon terminals, $CD4^+$ $CD39^+$ $CD161^+$ Th17 precursors, PD-1^+ $CD39^+$ "exhausted" $CD8^+$ T cells and $FoxP3^+$ $CD25^+$ $CD4^+$ $CD127^-$ $CD49d^-$ suppressor plus $FoxP3^-$ $CD25^-$ $CD4^+$ $CD127^+$ $CD49d^+$ non-suppressor T cells (1-9). ENTPD1 hydrolyzes the β- and γ phosphate residues of nucleotides, preferring ATP as the substrate. Through its hydrolysis of extracellular nucleotides, ENTPD1 plays a role in the regulation of purinergic signaling. Extracellular ATP released from dead or stressed cell creates a proinflammatory environment. In concert with CD73, the conversion of ATP to adenosine reverses this and creates an antiinflammatory environment (1,2). Over amino acids (aa) 38-478, mouse ENTPD1 shares 90% and 76% aa sequence identity with rat and human ENTPD1, respectively

References:

1. Bono, M.R. *et al.* (2015) FEBS Lett. **589**:3454.
2. Antonioli, L. *et al.* (2013) Trends Mol. Med. **19**:355.
3. Machida, T. *et al.* (2005) J. Pharmacol. Exp. Ther. **313**:570.
4. Aldi, S. *et al.* (2015) FASEB J. **29**:61.
5. Schuler, P.J. *et al.* (2011) J. Immunol. Methods **369**:59.
6. Gupta, P.K. *et al.* (2015) PLoS Pathog. **11**:e1005177.
7. Bai, A. and S. Robson (2015) Purinergic Signal. **11**:317.
8. Sorenson, C.E. *et al.* (2003) J. Physiol. **551**:881.
9. Mascanfroni, I.D. *et al.* (2013) Nat. Immunol. **14**:1054.

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