

Mouse CD39/ENTPD1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF4398

DESCRIPTION

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

DATA



Detection of CD39/ENTPD1 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Mouse CD39/ENTPD1 Antigen Affinitypurified Polyclonal Antibody (Catalog # AF4398, filled histogram) or control antibody (Catalog # Catalog # 5-001-A, open histogram), followed by NorthernLights™ 637-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # Catalog # NLD11).

Immunohistochemistry



CD39/ENTPD1 in Mouse Liver. CD39/ENTPD1 was detected in perfusion fixed frozen sections of mouse liver using Mouse CD39/ENTPD1 Antigen Affinitypurified Polyclonal Antibody (Catalog # AF4398) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # Catalog # CTS019) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.	
Shipping	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	
Stability & Storage	 Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. 	

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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 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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