

Product datasheet for **SM1101R**

CD39 (ENTPD1) Mouse Monoclonal Antibody [Clone ID: A1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	A1
Applications:	FC
Recommended Dilution:	Flow Cytometry: Use 10 µl of Neat antibody to label 10e6 cells or 100 µl whole blood.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	PHA activated human lymphocytes
Specificity:	This antibody binds to the Human CD39 cell surface antigen, a 70-100 kD molecule expressed on peripheral blood B cells, monocytes and T cell clones. CD39 has intrinsic ecto-ATPase activity. Expression is induced on T cells and increased on B cells as a late activation antigen. This antibody has been shown to block MHC independent target cell recognition by hapten-specific CTL. SM1101A is recommended for this purpose (Ref.8).
Formulation:	PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: PE State: Lyophilized purified IgG fraction. Label: R. Phycoerythrin (RPE)
Reconstitution Method:	Restore with 1.0 ml distilled water.
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G.
Conjugation:	PE
Storage:	Prior to and following reconstitution store the antibody undiluted at 2-8°C. This product is photosensitive and should be protected from light. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.
Gene Name:	ectonucleoside triphosphate diphosphohydrolase 1



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Database Link: [Entrez Gene 953 Human P49961](#)

Background: Human CD39 is found on most mature B cells, activated NK cells and activated T cells. CD39 is also weakly expressed on granulocytes. CD39 has homology to the Nmyc family of proteins and was recently cloned. CD39 can hydrolyze both nucleoside triphosphates and diphosphates. CD39 is the dominant ecto nucleotidase of vascular and placental trophoblastic tissues and appears to modulate the functional expression of type 2 purinergic (P2) G protein coupled receptors (GPCRs). CD39 transgenic mice exhibit impaired platelet aggregation, prolonged bleeding times, and resistance to systemic thromboembolism. There is a correlation between ATP hydrolysis and triglycerides in patients with chronic heart disease, suggesting a relationship between ATP diphosphohydrolase and thrombogenesis. Depolarization causes the endothelial production of superoxide, which inhibits the activity of endothelial CD39 and enhances platelet aggregation. After exercise, all subjects showed a significant reduction of CD39 expression in platelet and an increase of CD39 expression in B lymphocytes.

Synonyms: NTPDase 1, Ecto-apyrase, ATPDase