

Product datasheet for **AM33385PU-N**

CD39 (ENTPD1) Rat Monoclonal Antibody [Clone ID: R22]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R22
Applications:	FC
Recommended Dilution:	Flow Cytometry: The R22 antibody is suitable for the detection of Human CD39 antigen. Human spleen is suitable as a positive control.
Reactivity:	Human
Host:	Rat
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	This Antibody derived by fusion of SP2/0 mouse myeloma cells with splenocytes from a WAG/Rij rat immunized with JY cells, a human B lymphoblastoid cell line.
Specificity:	The antibody R22 is directed against Human CD39. Other species not tested.
Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	ectonucleoside triphosphate diphosphohydrolase 1
Database Link:	Entrez Gene 953 Human P49961



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Background:

CD39 is a transmembrane cell surface protein, which is a member of the ecto-nucleoside triphosphate diphosphohydrolase (ENTPDase) family. The CD39 molecule is primarily involved in the metabolism of purine nucleotides, converting extracellular adenosine triphosphate (ATP) and adenosine diphosphate (ADP) to adenosine monophosphate (AMP). In conjunction with CD73 (5' nucleotidase), CD39 plays a key role in regulating immunity and inflammation through the production of adenosine and purinergic signalling pathways. In addition, CD39 is reported to mediate B cell homotypic adhesion and inhibit ADP-induced platelet aggregation.

CD39 was originally identified on Epstein Barr virus transformed B cell lines and described as a B-cell activation marker. However, subsequent studies have shown that CD39 is also expressed on activated T-cells, T-regulatory cells, natural killer cells, tissue macrophages and endothelial cells. Increased expression of CD39 has also been reported in cases of chronic lymphocytic leukaemia and several solid tumours including colorectal and pancreatic cancer suggesting a potential role for CD39 in tumour development and progression.

Synonyms:

NTPDase 1, Ecto-apyrase, ATPDase