RD SYSTEMS a biotechne brand

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: FAB3505P 100 TESTS

DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human CD177/PRV1 in direct ELISAs and Western blots.		
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CD177/PRV1 Leu22-Gly407 Accession # Q8N6Q3		
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm		
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



Detection of CD177 in Human Blood Monocytes by Flow Cytometry. Human peripheral blood monocytes were stained with Goat Anti-Human CD177 PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB3505P, filled histogram) or isotype control antibody (Catalog # IC108P, 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.	

CD177

Stability & Storage

- Protect from light. Do not freeze.
 - 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Human CD177 is a 50-65 kDa member of the uPAR/CD59/Ly6 superfamily of proteins. It contains two uPAR/Ly6 domains (vs. four in mouse), and is expressed as a GPI-linked glycoprotein. Within common regions, human and mouse CD177 share 55% amino acid (aa) sequence identity. CD177 is also known as NB1 and PVR1, the difference between them being four single as substitutions at positions 3 (Pro-to-Ala), 119 (Phe-to-Leu), 323 (GIn-to-Arg), and 379 (Ser-to-Phe), NB1 to PVR1, respectively. It has been suggested that the PVR1 isoform appears under stress or pathological conditions. CD117 expression is restricted to neutrophils and neutrophil precursors, becoming more widespread with maturity. It is typically found on 45-65% of circulating neutrophils. On the cell surface, CD117 apparently forms a complex with PR3 (protease 3) and Mac-1 (CD11b:CD18), whereupon it both presents PR3 externally, and binds to CD31/PECAM1. On vascular endothelial cells, its interaction with CD31 mediates neutrophil adhesion to the vascular wall and neutrophil transmigration, apparently through a downregulation of CD31 phosphorylation. Notably, the ability of CD117 to facilitate transmigration appears to be a function of the isoform of CD31 to which it binds. In this regard, a Ser at position 536 in the sixth Ig domain of CD31 is associated with swift neutrophil exit from the vasculature.

Rev. 5/3/2016 Page 1 of 1

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