

## DESCRIPTION

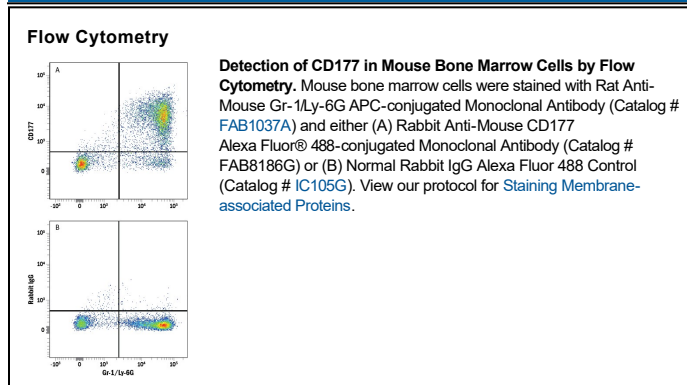
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD177 in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1171A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Human embryonic kidney cell line HEK293-derived recombinant mouse CD177 Accession # Q8R2S8
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	5 µL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**BACKGROUND**

CD177 is a member of the uPAR/CD59/Ly6 superfamily (1). Mature mouse CD177 is a 796 amino acid (aa) protein that contains four uPAR/Ly6 domains, while human CD177 contains only two. Within common regions, mouse CD177 shares 55% and 77% aa sequence identity with human and rat CD177, respectively. CD177 is expressed on the surface of neutrophils through a glycosylphosphatidylinositol (GPI) anchor (2-4). It is nearly absent from neutrophils from paroxysmal nocturnal hemoglobinuria patients who are deficient in the ability to synthesize GPI linkages (4, 5). It is up-regulated on granulocytes from polycythemia vera and thalassemia patients (6, 7). CD177 binds to PECAM-1 on vascular endothelial cells, an interaction which mediates neutrophil adhesion to the vascular wall and neutrophil transmigration (8). It associates *in cis* with the Integrin MAC-1 (CD11b/CD18) (9). CD177 also associates *in cis* with Proteinase 3 (PR3) and is required for cell surface PR3 expression (9-11). PR3 is normally found in intracellular vesicles, but once at the cell surface it can serve as an autoimmune target for anti-neutrophil cytoplasmic antibodies (ANCA) (12). The ANCA targeting of CD177-PR3 complexes triggers neutrophil activation and vasculitis (9, 12).

**References:**

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