

## DESCRIPTION

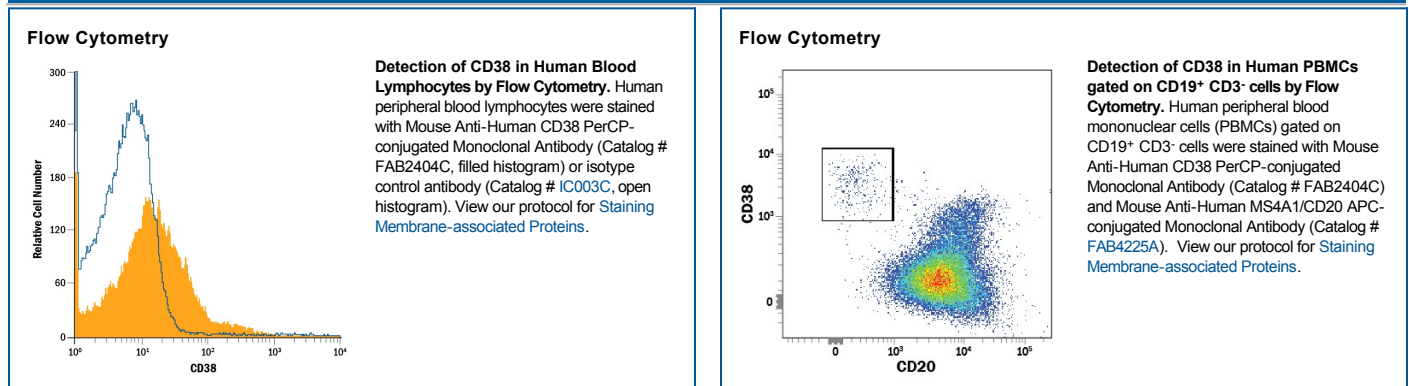
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CD38 in flow cytometry.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 240742
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0 mouse myeloma cell line transfected with human CD38 Met1-Ile300 Accession # P28907
<b>Conjugate</b>	PerCP (Peridinin-chlorophyll Protein Complex) Excitation Wavelength: 482 and 564 nm Emission Wavelength: 675 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>	10 $\mu$ L/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

CD38, also known as ADP-ribosyl cyclase, is a Type II integral membrane protein. The enzyme is able to transform NAD(P)<sup>+</sup> into three different products with calcium mobilizing ability, cyclic ADP-ribose, NAADP<sup>+</sup>, and ADP-ribose (1). CD38 is expressed in B and T lymphocytes, osteoclasts, and in cardiac, pancreatic, liver and kidney cells (2, 3). Through its production of cyclic ADP-ribose, CD38 modulates calcium-mediated signal transduction in many types of cells, including neutrophils and pancreatic  $\beta$  cells (4, 5).

### References:

- Schuber, F. and F.E. Lund (2004) *Curr. Mol. Med.* **4**:249.
- Jackson, D.G. and J.I. Bell (1990) *J. Immunol.* **144**:2811.
- Sun, L. *et al.* (1999) *J. Cell Biol.* **146**:1161.
- Partida-Sanchez, S. *et al.* (2001) *Nature Med.* **7**:1209.
- Kato, I. *et al.* (1995) *J. Biol. Chem.* **270**:30045.