

## DESCRIPTION

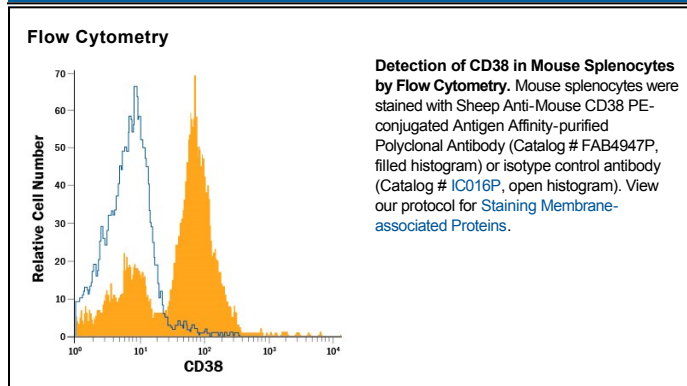
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD38 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 20% cross-reactivity with recombinant human CD38 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CD38 Leu45-Thr304 Accession # EDL37596
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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/ $10^6$ 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> ● 12 months from date of receipt, 2 to 8 °C as supplied.

## BACKGROUND

CD38, also known as ADP-ribosyl cyclase and cyclic ADP-ribose hydrolase-1, 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). CD38 has been shown to regulate oxytocin secretion, and may be involved in the development of complex social behaviors in mammals (6). Over amino acids (aa) 45-304, mouse and human CD38 share 57% aa sequence identity.

### 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.
- Jin, D. *et al.* (2007) *Nature* **446**:41.