

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD38.
Source	Monoclonal Mouse IgG _{2A} Clone # 240742
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human CD38 Met1-Ile300 Accession # P28907
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10 ⁶ cells	Human whole blood lymphocytes

PREPARATION AND STORAGE

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

BACKGROUND

CD38, also known as ADP-ribosyl cyclase, is a Type II integral membrane protein. The enzyme is able to transform NAD(P)⁺ into three different products with calcium mobilizing ability, cyclic ADP-ribose, NAADP⁺, 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 β 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.

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