

## TECHNICAL DATA SHEET

### CyFlow™ CD38 Purified Anti-Hu; Clone HIT2

**REF** CQ743527



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**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

Antigen	CD38
Alternative Names	T10
Clone	HIT2
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [ 1 mg/mL ]
Immunogen	Human thymocytes in foetus

The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services)



## Specificity

The mouse monoclonal antibody HIT2 recognizes CD38 antigen, a 45 kDa type II transmembrane glycoprotein strongly expressed mainly on plasma cells and activated T and B lymphocytes; it is an antigenic marker of lymphoid cells.

HLDA III—WS Code T 155

## Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot
- Immunohistochemistry

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH  $\approx$ 7.4, containing 0.09% (w/v) sodium azide.

## Storage and Stability

<b>Storage</b>	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
<b>Stability</b>	Do not use after expiration date stamped on vial label.

## Background Information

CD38 (NAD<sup>+</sup> glycohydrolase) is a type II transmembrane glycoprotein able to induce activation, proliferation and differentiation of mature lymphocytes and mediate apoptosis of myeloid and lymphoid progenitor cells. Another role of CD38 is provided by enzymatic activity of its extracellular part. CD38 acts as NAD<sup>+</sup> glycohydrolase converting NAD<sup>+</sup> into ADP-ribose, as ADP-ribosyl cyclase producing cADPR and as cADPR hydrolase, thus affecting levels of calcium-mobilizing metabolites. ADPR produced by CD38 serves as an important second messenger of neutrophil and dendritic cell migration.

## Warnings

**Non-Hazardous Statement:** This is not considered hazardous by the criteria in 29 CFR 1910.1200 or the General Classification guideline for preparations of the EU.

**Safety Data Sheet Statement:** Important information regarding the safe handling, transport, and disposal of this product is contained in the Safety Data Sheet.










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## References

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- Cakir-Kiefer C, Muller-Steffner H, Oppenheimer N, Schuber F: Kinetic competence of the cADP-ribose-CD38 complex as an intermediate in the CD38/NAD<sup>+</sup> glycohydrolase-catalysed reactions: implication for CD38 signalling. Biochem J. 2001 Sep 1; 358(2):399-406. < PMID: 11513738 >
- Lund FE, Muller-Steffner H, Romero-Ramirez H, Moreno-García ME, Partida-Sánchez S, Makris M, Oppenheimer NJ, Santos-Argumedo L, Schuber F: CD38 induces apoptosis of a murine pro-B leukemic cell line by a tyrosine kinase-dependent but ADP-ribosyl cyclase- and NAD glycohydrolase-independent mechanism. Int Immunol. 2006 Jul; 18(7):1029-42. < PMID: 16720618 >
- Kolar GR, Mehta D, Pelayo R, Capra JD: A novel human B cell subpopulation representing the initial germinal center population to express AID. Blood. 2007 Mar 15; 109(6):2545-52. < PMID: 17132718 >
- Partida-Sanchez S, Gasser A, Fliegert R, Siebrands CC, Dammermann W, Shi G, Mousseau BJ, Sumoza-Toledo A, Bhagat H, Walseth TF, Guse AH, Lund FE: Chemotaxis of mouse bone marrow neutrophils and dendritic cells is controlled by adp-ribose, the major product generated by the CD38 enzymereaction. J Immunol. 2007 Dec 1; 179(11):7827-39. < PMID: 18025229 >
- Rozková D, Novotná L, Pytlík R, Hochová I, Kozák T, Bartůnková J, Spísek R: Toll-like receptors on B-CLL cells: expression and functional consequences of their stimulation. Int J Cancer. 2010 Mar 1; 126(5):1132-43. < PMID: 19685493 >

## Symbols

	Reagent catalogue number		Contains sufficient for <n> tests
	For Research Use Only. Not for use in diagnostic and therapeutic procedures.		Temperature limitation
	Batch code		Keep away from sunlight
	Manufacturer		Consult accompanying documents
	Use by		

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