Anti-Human CD20 (B9E9; Ms.IgG2a) Technical Data Sheet

Specificity	**CD20**	**Clone**	**B9E9**
Hybridoma	P3-X63-Ag8.653 x BALB/c		
Isotype	IgG_{2a}	**Host**	Mouse
Source and Purification	The antibody is purified from cellular supernatant or ascitic fluid via affinity chromatography (protein A/G); after fluorochrome conjugation, the antibody is purified by means of size exclusion chromatography.		
Storage Buffer	1 ml of PBS pH 7.4 containing 0.5% BSA and 0.1% NaN_3.		
Intended use	The antibody is intended for identification and in vitro enumeration of CD20+ cells, according to customer's protocol. Relevant protocols are available upon request, including troubleshooting.		
Main clinical applications	Characterization of precursor B leukaemia and of mature B cell neoplasms. For Research Use Only - Not for use in diagnostic procedures		

Stability and storage

- Store at 2-8 °C. **Do not freeze!**
- Do not expose the reagent to direct light during storage or incubation with cells. In these conditions the product is stable until the expiration date stated on the vial label. Do not use after the expiration date.
- Use a fresh micropipette tip to take the reagent from the vial to preserve its performance characteristics and to avoid contaminations, which can cause erroneous results. Do not use the reagent if it discolours, or if precipitate forms.
- It is recommended to centrifuge before use.
- The pellet formation after centrifugation is a normal event which does not modify the product performances.

Performance characteristics

Specificity

The CD20 antigen is a non-glycosylated protein with a molecular weight of 35 or 37 kDa depending on the degree of phosphorylation and is present on human pre-B lymphocytes and on B-lymphocytes at all stages of maturation, except on plasma cells. Although there are still no clues of its ligands, the role of CD20 has been studied in several publications. In particular, there are many evidence indicating that CD20 regulates the calcium influx and therefore calcium cytoplasmic levels. Through this calcium influx, CD20 may be able to control the cell growth. CD20 functions downstream of the BCR and its role is tied to the expression of this receptor. In addition, CD20 also regulates B cell activation.

Sensitivity

The antibody sensitivity is defined by the positive CD20 population resolution from the negative CD20 population, obtained by analysing several antibody concentrations on PBMCs from healthy donors.

Reproducibility and repeatability

The antibody meets the specifications defined by the Human Leukocyte Differentiation Workshop.

REF Catalogue number	Expiry date	Manufacturer: AcZon Srl Via Lavino 265/D 40050 Monte San Pietro (BO) • Italia Tel: +39 051 00 18 977 info@aczonpharma.com • www.aczonpharma.com
LOT Lot number	Temperature range	
RUO For research use only	Consult instructions for use	

(Reinherz EL, Haynes BF, Nadler L, Bernstein ID, eds. Leukocyte Typing II. New York: *Springer-Verlag, 1985)*.
To determine the repeatability of staining with each reagent, samples were stained with different lots of reagents using several samples.

Limits

When analysing samples, it should be considered that the use of monoclonal antibodies in patient treatment can interfere with recognition of target antigens by this reagent. Using pathological specimens (e.g., leukaemia or lymphomas), it is possible to obtain more information with combined reagents rather than single reagents.

Since reagents can be used in different combinations, laboratories need to become familiar with the properties of each antibody in conjunction with other markers in normal and abnormal samples.

Instructions and precautions

The reagent *contains sodium azide,* a toxic and dangerous compound, and should be handled by trained staff only.
H302 – Harmful if swallowed.
EUH032 – Contact with acids liberates very toxic gas.
P102 – Keep out of reach of children.
P270 – Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/…
P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician…

The reagent, the biological specimens and materials coming in contact with them are considered biohazards and handled as if capable of transmitting infections. Dispose in accordance with federal, state and local regulations.

Available packages

Form	Quantity	Code	F/P ratio	Tested Application
Purified concentrated	100 µg/1mL	CD20-AMS100H	n.d.	Flow cytometry
Biotin concentrated	100 µg/1mL	CD20-FMS100H	4-8	-
FITC ready to use	100 tests/1mL	CD20-BMS100H	3-9	Flow cytometry
R-PE ready to use	100 tests/1mL	CD20-CMS100H	0.5-1.5	Flow cytometry
APC ready to use	100 tests/1mL	CD20-EMS100H	0.5-1.5	Flow cytometry
PerCP ready to use	100 tests/1mL	CD20-GMS100H	1-2	Flow cytometry
TDR5 ready to use	100 tests/1mL	CD20-DMS100H	2-4	Flow cytometry
TDP55 ready to use	100 tests/1mL	CD20-HMS100H	2-4	Flow cytometry
TDR7 ready to use	100 tests/1mL	CD20-IMS100H	0.5-1.5	Flow cytometry
TDA7 ready to use	100 tests/1mL	CD20-JMS100H	1-2	Flow cytometry

I. For ready to use formats,10 µl are sufficient to label 0.1-1x10^6 leukocytes (or PBMCs) in 100 µl.
II. See label for lot-specific concentration values.

- TDR5 is a R-PE-Cy5 substitute dye.
- TDP55 is a PerCP-Cy5.5 substitute dye.
- TDR7 is a R-PE-Cy7 substitute dye.
- TDA7 is an APC-Cy7 substitute dye.

Only for professional use • MSDS and protocols available on request

References

Walshe CA, Beers SA, French RR, Chan CH, Johnson PW, Packham GK, Glennie MJ, Cragg MS, *J Biol Chem. 2008*, 283:16971-84
Uchida J, Lee Y, Hasegawa M, Liang Y, Bradney A, Oliver JA, Bowen K, Steeber DA, Haas KM, Poe JC, Tedder TF, *Int Immunol. 2004*,16:119-29
Tedder TF, Engel P, *Immunol. Today 1994,* 15(9):450-4
Hultin LE, Hausner MA, Hultin PM, Giorgi JV, *Cytometry 1993,* 14(2):196-204