

BD CD81 (JS-81)

Monoclonal Antibodies Detecting Human Antigens

Form **Catalog number**

APC-H7 656647

Product availability varies by region. Contact BD Biosciences Customer Support or your local sales representative for information.

Research Applications

Research applications include:

- Studies of B-cell proliferation¹
- Research on antibody deficiency²
- Research on the hepatitis C virus receptor^{3,4}

Description

Specificity

The CD81 antibody recognizes a 26-kilodalton (kDa) member of the tetraspanin family (TM4SF).¹ The CD81 antigen is also known as TAPA-1.

Antigen distribution

The CD81 antigen has a very broad cellular distribution, being expressed on cells of hematopoietic, neuroectodermal, and mesenchymal origin. In hematopoietic cells, the CD81 antigen is expressed on B and T lymphocytes, natural killer (NK) cells, thymocytes, eosinophils, germinal center follicular dendritic cells, and to a variable extent on monocytes.⁵ The CD81 antigen is not expressed on neutrophils, platelets, or erythrocytes.⁵

The CD81 antibody has been shown to have anti-proliferative effects on different lymphoid cell lines, particularly those derived from large cell lymphomas.¹ The CD81 antigen is involved in cell growth and signal transduction.⁶ Immunoprecipitation studies reveal that the CD81 antigen is a component of a multimolecular complex that can include the Leu13 molecule,⁷ and the CD19 and CD21 molecules in B cells.^{8,9}

Clone

The CD81 antibody, clone JS-81,⁵ is derived from the hybridization of P3/NS1/1-Ag4-1 mouse myeloma cells with spleen cells isolated from mice immunized with the Burkitt lymphoma cell line, Ramos.¹⁰

Composition

The CD81 antibody is composed of mouse IgG₁ heavy chains and kappa light chains.

Product configuration

The following is supplied in buffer containing a stabilizer and a preservative.

Form	Number of tests	Volume per test (μL)	Amount provided (μg)	Total volume (mL)	Concentration (μg/mL)	Stabilizer	Preservative
APC-H7	100	5	50	0.5	100	BSA	CMIT/MIT (3:1)

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

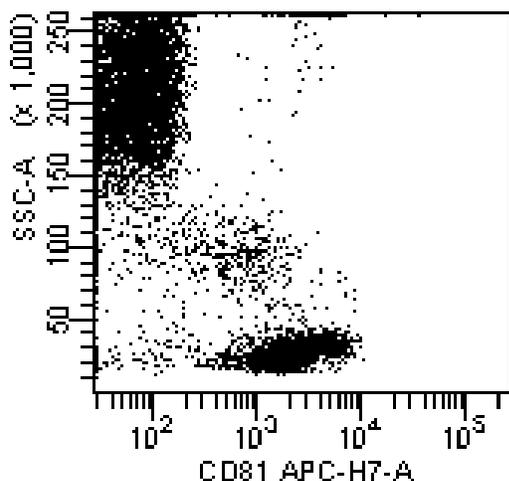
CAUTION Some APC-H7 conjugates show changes in their emission spectra with prolonged exposure to paraformaldehyde or light. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

Procedure

Go to our website (bdbiosciences.com) or contact your local BD representative for the lyse/wash protocol for direct immunofluorescence.

Representative Data

Flow cytometric analysis was performed on whole blood stained with the indicated conjugated antibody. Laser excitation was at 635 nm. Representative data analyzed with a BD flow cytometer is shown in the following plot.



Handling and Storage

Store vials at 2–8 °C. Conjugated forms should not be frozen. Protect from exposure to light. Each reagent is stable until the expiration date shown on the bottle label when stored as directed.

Warning

All biological specimens and materials coming in contact with them are considered biohazards. Handle as if capable of transmitting infection^{11,12} and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

The APC-H7 conjugate contains a mixture of 0.00236% 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one [CMIT/MIT (3:1)], CAS number 55965-84-9. These reagents are classified as hazardous according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

	Warning
	H317: May cause an allergic skin reaction.
Prevention	P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

	Warning
	P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352: IF ON SKIN: Wash with plenty of water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P321: Specific treatment (see supplemental first aid instructions on Safety Data Sheet). P321: Specific treatment (see Safety Data Sheet). P362+P364: Take off contaminated clothing and wash it before reuse.
Disposal	P501: Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Go to regdocs.bd.com to download the Safety Data Sheet.

Characterization

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

Warranty

Unless otherwise indicated in any applicable BD general conditions of sale for non-US customers, the following warranty applies to the purchase of these products.

THE PRODUCTS SOLD HEREUNDER ARE WARRANTED ONLY TO CONFORM TO THE QUANTITY AND CONTENTS STATED ON THE LABEL OR IN THE PRODUCT LABELING AT THE TIME OF DELIVERY TO THE CUSTOMER. BD DISCLAIMS HEREBY ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE AND NONINFRINGEMENT. BD'S SOLE LIABILITY IS LIMITED TO EITHER REPLACEMENT OF THE PRODUCTS OR REFUND OF THE PURCHASE PRICE. BD IS NOT LIABLE FOR PROPERTY DAMAGE OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING PERSONAL INJURY, OR ECONOMIC LOSS, CAUSED BY THE PRODUCT.

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