

BD Mouse IgG₁ (X40)

Monoclonal Antibodies Detecting Human Antigens

Form	Catalog number	Form	Catalog number	Form	Catalog number
Pure	349040	APC	340442	APC-R700	657708
FITC	349041	APC-Cy7	348792	BV605	657720
PE	349043	APC-H7	641401		
PerCP	349044	AmCyan	339185		
PerCP-Cy5.5	347202	V450	642268		
PE-Cy7	348788	V500-C	647451		

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

Research Applications

Mouse IgG₁ isotype controls can be used to estimate the amount of nonspecific binding of mouse monoclonal antibodies to human cell-surface antigens in peripheral blood and tissue, in particular, binding caused by Fc receptors.¹

The PerCP-Cy5.5, PE-Cy7, APC-Cy7, and APC-H7 controls can also be used to estimate the amount of binding mediated by the known interaction of the cyanine dye with CD64 protein.¹

Description

Specificity

The antibodies react specifically with keyhole limpet hemocyanin (KLH), an antigen not expressed on human cells or human cell lines.

Clone

The Mouse IgG₁ antibody, clone X40, is derived from the hybridization of Sp2/0-Ag 14 mouse myeloma cells with spleen cells from BALB/c mice immunized with KLH.

Composition

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

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

Product configuration

The following are 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
Pure	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
FITC	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
PE	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
PerCP	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
PerCP-Cy5.5	100	20	50	2.0	25	Gelatin	0.1% Sodium azide
PE-Cy7	400	5	100	2.0	50	Gelatin	0.1% Sodium azide
APC	200	5	100	1.0	100	Gelatin	0.1% Sodium azide
APC-Cy7	200	5	100	1.0	100	Gelatin	0.1% Sodium azide
APC-H7	100	5	50	0.5	100	Gelatin	0.1% Sodium azide
AmCyan	100	5	50	0.5	100	BSA	0.1% Sodium azide
V450	100	5	50	0.5	100	Gelatin	0.1% Sodium azide
V500-C	100	5	50	0.5	100	BSA	MIT
APC-R700	100	5	50	0.5	100	BSA	CMIT/MIT (3:1)
BV605 ^a	100	5	100	0.5	200	BSA	CMIT/MIT (3:1)

^a BD Horizon Brilliant™ Violet 605

Procedure

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

NOTE The volume per test is a suggested amount. Consult the monoclonal antibody data sheet for each test antibody to determine the amount of control (in μg) to use. The test and control antibody concentrations should be matched.

CAUTION Some nonspecific staining might be observed when using Mouse IgG₁ PE-Cy7 at titers of 0.25 μg per test (100 μL of whole blood).

CAUTION Do not use the Mouse IgG₁ PE isotype control for intracellular staining or for platelet assays. Instead, use the Mouse IgG₁ PE platelet/intracellular isotype control (Catalog No. 340013).

CAUTION Some APC-Cy7 conjugates, and to a lesser extent PE-Cy7, APC-H7, and BD Horizon™ APC-R700 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.

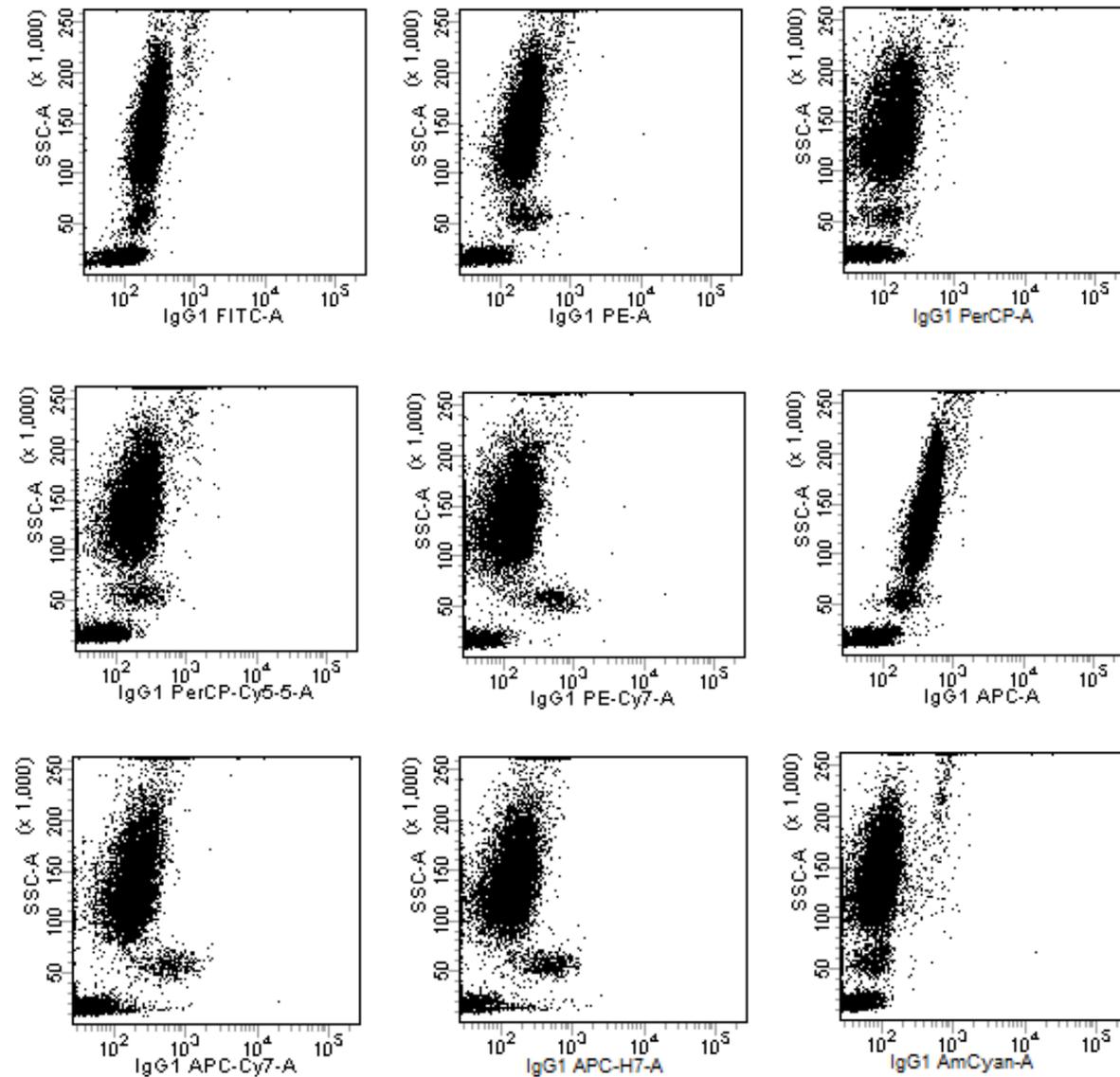
CAUTION Prolonged exposure of cells to paraformaldehyde can lead to increased autofluorescence in the violet channels. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

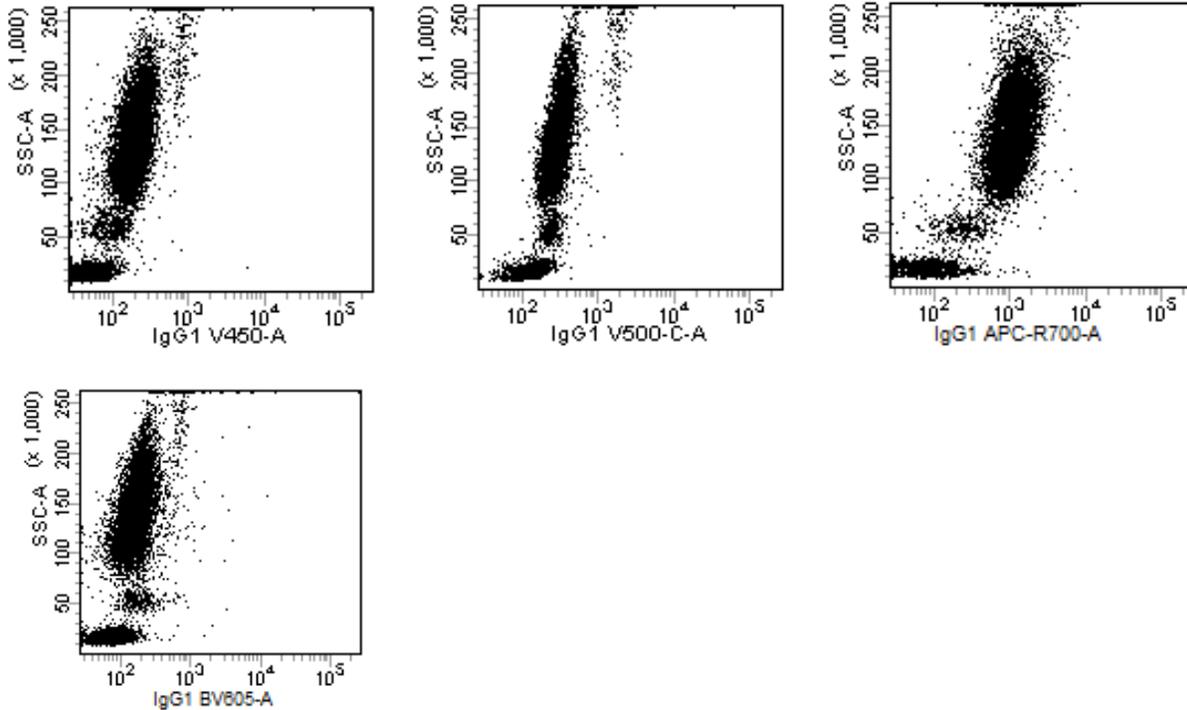
CAUTION For optimal results, use BD Horizon™ Brilliant Stain Buffer any time two or more BD Horizon Brilliant™ reagents are used in the same multicolor staining cocktail.

Representative Data

Flow cytometric analysis was performed on whole blood stained with the indicated conjugated antibody. Laser excitation was at 405 nm, 488 nm, 635 nm, or 640 nm.

The APC-R700 conjugate is read off the red laser (640 nm) using a 685 longpass (LP) mirror with a 712/21 bandpass (BP) filter. The BV605 conjugate is read off the violet laser (405 nm) using a 570 LP mirror with a 605/40 BP filter. Representative data analyzed with a BD flow cytometer is shown in the following plots.





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^{2,3} 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-R700 conjugate contains 0.0023% 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H - isothiazol-3-one [CMIT/MIT (3:1)] and the BV605 conjugate contains 0.0022% 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H - isothiazol-3-one [CMIT/MIT (3:1)], CAS number 55965-84-9, EC number 247-500-7/220-239-6. The V500-C conjugate contains 0.007% 2-methyl-4-isothiazolin-3-one (MIT), CAS number 2682-20-4, EC number 220-239-6. The AmCyan conjugate contains 0.3958% ethylenediamine, ethoxylated and propoxylated, CAS number 26316-40-5. 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. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection.

	Warning
Response	P302+P352: IF ON SKIN: Wash with plenty of water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. 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.

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.

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References

1. van Vugt MJ, van den Herik-Oudijk IE, van de Winkel JG. Binding of PE-CY5 conjugates to the human high-affinity receptor for IgG (CD64). *Blood*. 1996;88:2358-2361.
2. *Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline—Fourth Edition*. Wayne, PA: Clinical and Laboratory Standards Institute; 2014. CLSI document M29-A4.
3. Centers for Disease Control and Prevention. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>. Accessed March 12, 2019.

Patents and Trademarks

For US patents that may apply, see bd.com/patents.

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