

CD4 (SK3)

FORMS

Form	Catalog number	Form	Catalog number	Form	Catalog number
Pure	340853	PE-Cy7	348799	V500-C	647456
Biotin	340854	APC	340672	V450	651850
PE	340670	APC-Cy7	341105	BV421	659476
PerCP	340671	APC-H7	641407	BV510	659454
PerCP-Cy5.5	341653	AmCyan	339198	BV605	663188

DESCRIPTION

Specificity

The CD4 antibody^{1,2} recognizes a 55-kilodalton (kDa)³ glycoprotein that is present on T-helper/inducer lymphocytes and monocytes.^{4,5}

Antigen distribution

The CD4 antigen is present on the helper/inducer T-lymphocyte subset, such as CD3⁺CD4⁺, that comprises 28% to 58%⁶ of normal peripheral blood lymphocytes.^{3,5} It is also present on 80% to 95% of normal thymocytes.^{3,5} The CD4 antigen is present in low density on the cell surface of monocytes and in the cytoplasm of monocytes and macrophages (CD3⁻CD4⁺).⁷

Clone

The CD4 antibody, clone SK3,¹ is derived from the hybridization of NS-1 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with human peripheral blood T lymphocytes.

Composition

The CD4 antibody is composed of mouse IgG₁ heavy chains and kappa light chains.

Product configuration

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

Form	Number of tests	Volume per test (µL) ^a	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
Pure	200	20	100	4	25	Gelatin	0.1% Sodium azide
Biotin	100	20	6	2	3	Gelatin	0.1% Sodium azide
PE	100	20	6.2	2	3.1	Gelatin	0.1% Sodium azide
PerCP	100	20	6.4	2	3.2	Gelatin	0.1% Sodium azide
PerCP-Cy TM 5.5	50	20	1.5	1	1.5	Gelatin	0.1% Sodium azide
PE-Cy TM 7	100	5	6	0.5	12	Gelatin	0.1% Sodium azide
APC	100	5	3	0.5	6	Gelatin	0.1% Sodium azide
APC-Cy7	100	5	6	0.5	12	Gelatin	0.1% Sodium azide
APC-H7	100	5	6	0.5	12	Gelatin	0.1% Sodium azide

Analyte Specific Reagent. Analytical and performance characteristics are not established.

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Form	Number of tests	Volume per test (µL) ^a	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
AmCyan	100	5	3	0.5	6	BSA	0.1% Sodium azide
V500-C ^b	100	5	3	0.5	6	BSA	ProClin™ 950
V450 ^b	100	5	6.5	0.5	13	Gelatin	0.1% Sodium azide
BV421 ^b	100	5	3.15	0.5	6.3	BSA	ProClin 950
BV510 ^b	100	5	3.15	0.5	6.3	BSA	ProClin 950
BV605 ^b	100	5	6.3	0.5	12.6	BSA	0.09% Sodium azide

a. Volume required to stain 10⁶ cells.

b. BD Horizon™ V500-C, BD Horizon™ V450, BD Horizon Brilliant™ Violet 421, BD Horizon Brilliant™ Violet 510, BD Horizon Brilliant™ Violet 605

CAUTION Some APC-Cy7 conjugates, and to a lesser extent PE-Cy7 and 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.

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™ dyes are used in the same multicolor staining cocktail.

Purity

Pure, Biotin: ≥85% pure at bottling, as measured by polyacrylamide gel electrophoresis (PAGE)

PE, PerCP, PerCP-Cy5.5, PE-Cy7, APC, APC-Cy7, AmCyan, APC-H7, V500-C, V450: ≤20% free fluorophore at bottling, as measured by size-exclusion chromatography (SEC)

BV421, BV510, BV605: ≤25% free fluorophore, as measured by ion-exchange chromatography (IEC)

HANDLING AND STORAGE

Store vials at 2°C–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^{8,9} 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.

Visit 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

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PATENTS AND TRADEMARKS

BV421, BV510, and BV605 are covered by one or more of the following US patents: 8,158,444; 8,362,193; 8,575,303; 8,354,239; 8,110,673; 8,227,187; or 8,455,613.

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