

# CD10 (HI10a)

## FORMS

Form	Catalog number	Form	Catalog number	Form	Catalog number
FITC	340924	PE-Cy™7	341102	APC-R700	659111
PE	340920	APC	340922	BV421	659449
PerCP-Cy™5.5	663194	APC-H7	655426	BV605	663986

## DESCRIPTION

### Specificity

The CD10 antibody recognizes a 100-kilodalton (kDa) type II transmembrane, glycosylated, zinc-containing metalloprotease.<sup>1,2</sup> The CD10 antigen is also known as common acute lymphoblastic leukemia antigen (CALLA), neutral endopeptidase (NEP), gp100, and enkephalinase.<sup>3</sup>

### Antigen distribution

The CD10 antigen is found on lymphocytes from samples with acute B-lymphoid leukemia.<sup>4</sup> The CD10 antigen is also present on a wide variety of normal and neoplastic cell types including renal epithelium, fibroblasts, granulocytes, germinal center B lymphocytes,<sup>5</sup> neutrophils,<sup>6-8</sup> some T-cell leukemias,<sup>9</sup> and some lymphoma, melanoma, and glioma cell lines.<sup>3</sup>

The CD10 antigen cleaves a number of biologically active peptides,<sup>10</sup> including fMLP, and may modulate the chemotactic activity of fMLP towards neutrophils.<sup>11</sup> Inhibition of the CD10 antigen promotes B-cell maturation,<sup>12</sup> suggesting that it plays a role in B-cell development.

### Clone

The CD10 antibody, clone HI10a,<sup>2</sup> is derived from the hybridization of P3-63-Ag8.653 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with blasts from a patient with acute CALLA leukemia.

### Composition

The CD10 antibody is composed of mouse IgG<sub>1</sub> 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) <sup>a</sup>	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
FITC	50	20	12.5	1	12.5	Gelatin	0.1% Sodium azide
PE	50	20	6	1	6	Gelatin	0.1% Sodium azide
PerCP-Cy5.5	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide
PE-Cy7	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide
APC	100	5	12.5	0.5	25	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) <sup>a</sup>	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
APC-H7	100	5	25	0.5	50	BSA	ProClin™ 300
APC-R700 <sup>b</sup>	100	5	6.25	0.5	12.5	BSA	ProClin 300
BV421 <sup>b</sup>	100	5	3.15	0.5	6.3	BSA	ProClin™ 950
BV605 <sup>b</sup>	100	5	25	0.5	50	BSA	0.09% Sodium azide

a. Volume required to stain 10<sup>6</sup> cells

b. BD Horizon™ APC-R700, BD Horizon Brilliant™ Violet 421, BD Horizon Brilliant™ Violet 605

**CAUTION** Some PE-Cy7, APC-H7, and 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** If you choose to combine BD Horizon Brilliant™ reagents in a multicolor staining cocktail, dyes may bind to one another without the use of a buffering solution, such as BD Horizon™ Brilliant Stain Buffer.

#### Purity

FITC: ≤5% free fluorophore at bottling, as measured by size-exclusion chromatography (SEC)

PE, PerCP-Cy5.5, PE-Cy7, APC, APC-H7, APC-R700: ≤20% free fluorophore at bottling, as measured by SEC

BV421, 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<sup>13,14</sup> and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing and gloves.

Some reagents are bottled with ProClin 300 and contain 0.003% of a mixture of CMIT/MIT (3:1), CAS number 55965-84-9.

Warning	
	H317 May cause an allergic skin reaction.
	Wear protective clothing/eye protection. Wear protective gloves. Contaminated clothing should not be allowed out of the workplace. Avoid breathing mist/vapors/spray. If skin irritation or rash occurs, get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations.

Visit [regdocs.bd.com](http://regdocs.bd.com) to download the Safety Data Sheets.

## 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.

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 NON-INFRINGEMENT. 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.

## REFERENCES

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**PATENTS AND  
TRADEMARKS**

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

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