BD CD10 (HI10a)

Form	Catalog number	Form	Catalog number
FITC	340924	APC	340922
PE	340920	APC-H7	655426
PerCP-Cy5.5	663194		
PE-Cy7	341102		

BD Horizon™ CD10 (HI10a)

Form	Catalog number
APC-R700	659111
BV421	659449
BV605	663986
BV711	664520

Description

Specificity

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

Antigen distribution

The CD10 antigen is found on lymphocytes from samples with acute B-lymphoid leukemia.[4] 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,[5] neutrophils,[6–8] some T-cell leukemias,[9] and some lymphoma, melanoma, and glioma cell lines.[3]

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

Clone

The CD10 antibody, clone HI10a,[2] 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_1 heavy chains and kappa light chains.

Product configuration

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

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

Form	Number of tests	Volume per test (µL)	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
APC-H7	100	5	25	0.5	50	BSA	0.0026% CMIT/MIT (3:1)
APC-R700[a]	100	5	6.25	0.5	12.5	BSA	0.0028% CMIT/MIT (3:1)
BV421[a]	100	5	3.15	0.5	6.3	BSA	0.009% MIT
BV605[a]	100	5	25	0.5	50	BSA	0.09% Sodium azide
BV711[a]	100	5	25	0.5	50	BSA	0.09% Sodium azide

a BD Horizon™ APC-R700, BD Horizon Brilliant™ Violet 421, BD Horizon Brilliant™ Violet 605, BD Horizon Brilliant™ Violet 711

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 might bind to one another without the use of a buffering solution, such as BD Horizon™ Brilliant Stain Buffer.

Purity

FITC: ≤5% free fluorophore, based on 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, BV711: ≤25% free fluorophore, as measured by ion-exchange chromatography (IEC)

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[13,14] and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing and gloves.

The APC-H7 contains 0.0026% and APC-R700 contains 0.0028% of a mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H -isothiazol-3one [CMIT/MIT (3:1)], CAS number 55965-84-9 and BV421 contains 0.009% 2-Methyl-4-isothiazolin-3-one , CAS number 2682-20-4. 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. H412: Harmful to aquatic life with long lasting effects.
Prevention	P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352: IF ON SKIN: Wash with plenty of soap and water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P321: Specific treatment (see supplemental first aid instructions on this label). 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.

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.

References

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