Technical Data Sheet

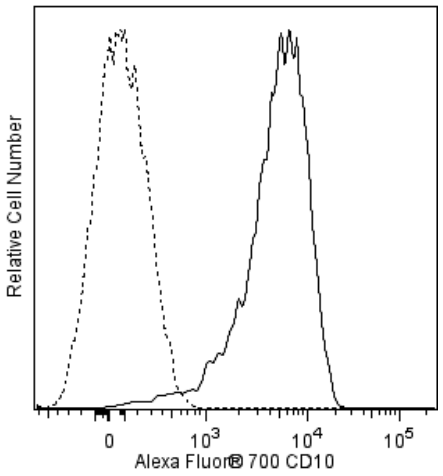
Alexa Fluor® 700 Mouse Anti-Human CD10

Product Information

Material Number:	**563509**
Alternate Name:	MME; CALLA; EPN; NEP; neprilysin; SFE; atriopeptidase; enkephalinase
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	HI10a
Immunogen:	Acute CALLA Leukemia Blast Cells
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
Workshop:	V CD10.7
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The HI10a monoclonal antibody specifically binds to CD10 which is also known as Neutral endopeptidase (NEP), Enkephalinase, Atriopeptidase, and Neprilysin. CD10 is encoded by *MME* (membrane metallo-endopeptidase). CD10 is a 100 kDa type II transmembrane glycoprotein that has neutral endopeptidase activity and is otherwise known as the Common Acute Lymphoblastic Leukemia Antigen (CALLA). CD10 is expressed on a wide variety of normal and neoplastic cell types. Normal cells expressing CD10 include granulocytes, bone marrow stromal cells, a subset of B-cell progenitors, germinal center B cells and fibroblasts. This cell surface metalloendopeptidase inactivates a number of signaling molecules and serves as a major regulator in the nervous, immune and other systems.



Flow cytometric analysis of CD10 expression on human REH cells. *Cells from the human REH cell line were stained with Alexa Fluor® 700 Mouse Anti-Human CD10 antibody (Cat. No. 563509; solid line histogram) or Alexa Fluor® 700 mIgG1, κ Isotype Control (Cat. No. 557882; dashed line histogram). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometry System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 700 under optimum conditions, and unreacted Alexa Fluor® 700 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
557882	Alexa Fluor® 700 Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554657	Stain Buffer (BSA)	500 mL	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
5. Alexa Fluor® 700 has an adsorption maximum of ~700nm and a peak fluorescence emission of ~720nm. Before staining cells with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
9. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook.* San Diego, CA: Academic Press; 1997(Biology)

Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens.* Oxford New York: Oxford University Press; 1989:1-1182. (Biology)

Letarte M, Vera S, Tran R, et al. Common acute lymphocytic leukemia antigen is identical to neutral endopeptidase. *J Exp Med.* 1988; 168(4):1247-1253. (Biology)