abcam

**ab95544**

# PE/Cy7® Anti-CD10 antibody [CB-CALLA]

Anti-CD10 antibody [CB-CALLA] conjugated to PE/Cy7® - suitable for flow cytometry, and reacts with human samples. Clone [CB-CALLA] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

## Key facts

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|---|---|
| **Isotype** | IgG2b |
| **Host species** | Mouse |
| **Conjugation** | PE/Cy7® |
| **Excitation/Emission** | Ex: 565nm, Em: 778nm |
| **Storage buffer** | pH: 7.2 Preservative: 0.09% Sodium azide |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Full Length Protein corresponding to Human MME. The exact immunogen used to generate this antibody is proprietary information. Database link P08473 |
| **Clone number** | CB-CALLA |
| **Purification technique** | Affinity purification Protein G |

## Reactivity data

## Flow Cyt

### Tested

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| **Species** | Human |
| **Dilution info** | 5 µL for $10^6$ Cells |

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| **Notes** | ab154458 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody. |

## Target data

See full target information MME

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| **Function** | Thermolysin-like specificity, but is almost confined on acting on polypeptides of up to 30 amino acids (PubMed:15283675, PubMed:6208535, PubMed:6349683, PubMed:8168535). Biologically important in the destruction of opioid peptides such as Met- and Leu-enkephalins by cleavage of a Gly-Phe bond (PubMed:17101991, PubMed:6349683). Catalyzes cleavage of bradykinin, substance P and neurotensin peptides (PubMed:6208535). Able to cleave angiotensin-1, angiotensin-2 and angiotensin 1-9 (PubMed:15283675, PubMed:6349683). Involved in the degradation of atrial natriuretic factor (ANF) and brain natriuretic factor (BNP(1-32)) (PubMed:16254193, PubMed:2531377, PubMed:2972276). Displays UV-inducible elastase activity toward skin preelastic and elastic fibers (PubMed:20876573). |

## Storage

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| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |

## Notes

This Cy7 tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling and experimental procedures.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

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| **Activity summary** | CD10 also known as neprilysin or neutral endopeptidase is a zinc-dependent metalloprotease enzyme with a mass of approximately 100 kDa. This enzyme is expressed across a variety of tissues including kidney lung and neutrophils. Its expression is also notable in the lymphoid tissues. CD10 functions by cleaving peptides at the N-terminal of hydrophobic residues. Common names used in literature for CD10 include CALLA (common acute lymphoblastic leukemia antigen) and membrane metalloendopeptidase. |

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| **Biological function summary** | CD10 regulates peptide signaling by inactivating various bioactive peptides such as enkephalins atrial natriuretic peptide and bradykinin. It does not function as part of a complex but rather as a standalone entity. The ability of CD10 to hydrolyze peptides influences signal transmission across cellular membranes impacting cellular communication and signal termination within different systems. |
| **Pathways** | Neprilysin plays an essential role in hydrolyzing signaling peptides in several critical pathways. It is especially significant in the natriuretic peptide system and the renin-angiotensin system maintaining blood pressure and fluid balance. Within these pathways CD10 modifies peptides working alongside proteins like atrial natriuretic peptide synthase and angiotensin-converting enzyme ensuring systemic homeostasis and cardiovascular health. |
| **Associated diseases and disorders** | CD10 shows a significant connection to certain types of cancer and Alzheimer's disease. In oncology altered expression of CD10 serves as a CD10 marker in cancers such as lymphomas and some leukemia forms which helps in diagnosis and treatment decisions. Additionally CD10's involvement in neuropeptide degradation links it to Amyloid beta peptide accumulation in Alzheimer's where its dysregulation may promote disease progression. Related proteins are amyloid precursor protein in Alzheimer's and CD19 often co-expressed with CD10 in some lymphomas highlighting its role in both diagnostic and therapeutic contexts. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

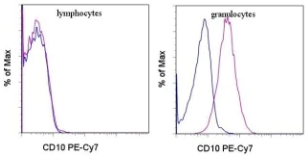
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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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## 1 product image




### Flow Cytometry - PE/Cy7® Anti-CD10 antibody [CB-CALLA] (ab95544)

CD10 Flow Cytometry staining using mouse Anti-CD10 antibody

Staining of normal human peripheral blood cells with Mouse IgG2b Isotype Control PE-Cy7 (blue histogram) or Anti-Human CD10 PE-Cy7 (ab95544) (purple histogram).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.