

CD45 Monoclonal Antibody (EM-05), PE

Catalog NumberMA1-10233

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG	Published species	Mouse, Not Applicable
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	1-2 µg/mL
Clone	EM-05	Published Applications	
Immunogen	Murine peripheral blood leukocytes	Flow Cytometry (Flow)	See 1 publications below
Conjugate	PE	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	Liquid		
Concentration	0.5 mg/mL		
Purification	Size-exclusion chromatography		
Storage buffer	PBS, pH 7.4		
Contains	15mM sodium azide		
Storage Conditions	4° C, store in dark, DO NOT FREEZE!		

Background/Target Information

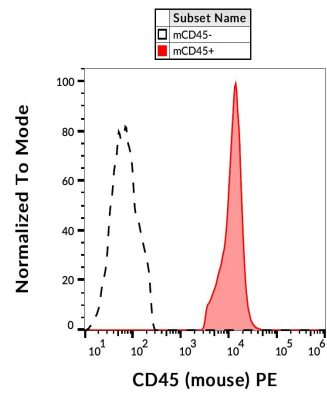
CD45 (LCA, leukocyte common antigen) is a receptor-type protein tyrosine phosphatase (PTP) ubiquitously expressed in all nucleated hematopoietic cells, comprising approximately 10% of all surface proteins in lymphocytes. CD45 is absent on non-hematopoietic cell lines, normal and malignant, non-hematopoietic tissues. CD45 glycoprotein is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases. CD45 protein exists as multiple isoforms as a result of alternative splicing, differ in their extracellular domains but share identical transmembrane and cytoplasmic domains. CD45RA is an isoform of the CD45 complex and has restricted expression between different subtypes of lymphoid cells. CD45 isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45 has been shown to be an essential regulator of T- and B-cell antigen receptor signaling and suppresses JAK kinases to regulate cytokine receptor signaling. CD45 is also important in promoting cell survival by modulating integrin-mediated signal transduction pathway, DNA fragmentation during apoptosis and inhibition or upregulation of various immunological functions.

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CD45 Antibody (MA1-10233) in Flow

Flow cytometry analysis (surface staining) of murine splenocytes with anti-CD45 antibody EM-05 PE Monoclonal antibody (Product # MA1-10233).

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1 Flow Cytometry References

Species / Dilution	Summary
Mouse / 1:500	MA1-10233 was used in Flow cytometry/Cell sorting to reveal that increased GLP-1 secretion after bariatric surgery arises from rapid nutrient delivery to the distal gut and is a key driver of enhanced insulin secretion.
	Cell reports (2019; 26: 1399)
	"Important Role of the GLP-1 Axis for Glucose Homeostasis after Bariatric Surgery." Author(s):Larraufie P,Roberts GP,McGavigan AK,Kay RG,Li J,Leiter A,Melvin A,Biggs EK,Ravn P,Davy K,Hornigold DC, Yeo GSH,Hardwick RH,Reimann F,Gribble FM PubMed Article URL: http://dx.doi.org/10.1016/j.celrep.2019.01.047

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