## CD45 / LCA Monoclonal Mouse Antibody (PTPRC/1460)

## **Product Description**

CD45R, also designated CD45 and PTPRC, has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. Multiple isoforms of CD45R are distributed throughout the immune system according to cell type. These isoforms arise because of alternative splicing of exons 4, 5, and 6. The corresponding protein domains are characterized by the binding of monoclonal antibodies specific for CD45RA (exon 4), CD45RB (exon 5), CD45RC (exon 6) and CD45RO (exons 4 to 6 spliced out). The variation in these isoforms is localized to the extracellular domain of CD45R, while the intracellular domain is conserved. CD45R functions as a phosphor-tyrosine phosphatase. This MAb reacts with all isoforms of CD45R expressed by all hematopoietic cells, except erythrocytes, having a higher level of expression on lymphocytes than on granulocytes (Workshop IV). Antibody to CD45 is useful in differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms.

Also view our <u>CD45 Mouse Monoclonal Biotium Choice Antibody (2D1)</u>. The antibody belongs to the Biotium Choice list of select antibodies that have been developed and validated in-house for optimal performance. The antibody has been validated in flow cytometry.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 1460, Anti-CD45 (PTPRC/1460)

## Product attributes

Call us: 800-304-5357

Product attributes				
Antibody number	#1460			
Antibody reactivity (target)	CD45, LCA			
Antibody type	Primary			
Host species	Mouse			
Clonality	Monoclonal			
Clone	PTPRC/1460			
Isotype	IgG1, kappa			
Molecular weight	180-220 kDa			
Synonyms	B220, CD45R, GP180, Leukocyte common antigen (LCA), Loc, Ly-5, Lyt-4, Protein tyrosine phosphatase receptor type C (PTPRC), Receptor-type tyrosine-protein phosphatase C, T200 glycoprotein			
Human gene symbol	PTPRC			
Entrez gene ID	5788			
SwissProt	P08575			
Unigene	654514			
Immunogen	Human B-lymphocytes			
Antibody target cellular localization	Plasma membrane			
Verified antibody applications	IHC (FFPE) (verified)			
Species reactivity	Human			
- P				
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user			
	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal			
Antibody application notes	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunofistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user			
Antibody application notes  Positive control	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunofistology (formalin: 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user			
Antibody application notes  Positive control Shipping condition	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user Ramos, U-698, or GA-10 cells. Tonsil Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light,			
Antibody application notes  Positive control Shipping condition Storage Conditions	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Ramos, U-698, or GA-10 cells. Tonsil  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when			
Antibody application notes  Positive control Shipping condition Storage Conditions Shelf life	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Ramos, U-698, or GA-10 cells. Tonsil  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended			
Antibody application notes  Positive control Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Ramos, U-698, or GA-10 cells. Tonsil  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA, Purified: 8.SA-free: 1 mg/mL in PBS/0.05% BSA, Purified: 9.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified; BSA-free: 1 mg/mL in PBS/0.05% azide; Purified; BSA-free: 1			
Antibody application notes  Positive control Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Ramos, U-698, or GA-10 cells. Tonsil  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.05% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide			
Antibody application notes  Positive control Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation  Antibody research areas	primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (formalin): 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Ramos, U-698, or GA-10 cells. Tonsil  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  Immunology, Signal transduction  Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in			

Email: btinfo@biotium.com

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

This datasheet was generated on November 3, 2025 at 07:22:59 PM. Visit product page to check for updated information before use. Product link: <a href="https://biotium.com/product/mouse-monoclonal-anti-cd45-lca-ptprc1460/">https://biotium.com/product/mouse-monoclonal-anti-cd45-lca-ptprc1460/</a>