## CD4 Monoclonal Mouse Antibody (CD4/3027)



## **Product Description**

The immunogen for this Mab is derived from the extracellular domain of CD4, a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens and is also a receptor for the human immunodeficiency virus. This protein is expressed not only in T lymphocytes, but also in B cells, macrophages, and granulocytes. It is also expressed in specific regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. The majority of peripheral T-cell lymphomas are derived from the T-helper/regulatory cell subset so that most mature T-cell neoplasms are CD4 /CD8-. Anti-CD4 is used in the immunohistochemical staining of lymphoproliferative disorders to evaluate tumors with CD4 aberrant expression.

Also view our <u>CD4 Monoclonal Mouse Biotium Choice Antibody (SK3)</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 3027, CD4 Monoclonal Mouse Antibody (CD4/3027)

## Product attributes

Product attributes			
Antibody number	#3027		
Antibody reactivity (target)	CD4		
Antibody type	Primary		
Host species	Mouse		
Clonality	Monoclonal		
Clone	CD4/3027		
Isotype	IgG2b, kappa		
Molecular weight	55 kDa		
Synonyms	L3T4; Leu3; Ly-4; Lymphocyte antigen CD4; p55; T cell antigen T4/LEU3; T cell differentiation antigen L3T4; T-cell surface antigen T4/Leu-3; T-cell surface glycoprotein CD4		
Human gene symbol	CD4		
Entrez gene ID	920		
SwissProt	P01730		
Unigene	631659		
Immunogen	Recombinant human CD4 protein extracellular domain fragment (around aa 245-392) (exact sequence is proprietary)		
Antibody target cellular localization	Plasma membrane		
Species reactivity	Human		
Antibody application notes	For coating for ELISA, order Ab without BSA, Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Optimal dilution and staining procedure for a specific application should be determined by user, Recommended starting concentrations for titration are 1-2 ug/mL for most applications, or 1 ug/million cells/100 uL for flow cytometry		
Positive control	Human peripheral blood mononuclear cells (PBMCs), CCRF-CEM or HL-60. Lymph node or tonsil.		
Shipping condition	Room temperature		
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C		
Regulatory status	For research use only (RUO)		
Antibody/conjugate formulation	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/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide		
Validated in protein array	Monospecific		
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended		
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.		
Cell/tissue expression	Lymphocytes, Myeloid cells		
Tumor expression	Leukemia/lymphoma		

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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	

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