

CD4, Mouse Monoclonal Rat Antibody (GK1.5)



Product Description

CD4 is a member of the Ig superfamily, primarily expressed on most thymocytes, a subset of T cells, and weakly on macrophages and dendritic cells. It acts as a coreceptor with the TCR during T cell activation and thymic differentiation by binding MHC class II and associating with the protein tyrosine kinase, lck. CD4 is expressed by the majority of thymocytes, most helper T cells, a subset of NK-T cells and weakly by dendritic cells and macrophages. CD4 plays an important role in the development of T cells and is required for mature T cells to function optimally. This antibody blocks helper T cell responses to MHC class II antigens, including cytotoxicity, proliferation, allogeneic B cell help, and release of lymphokines. 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 order@biotium.com to inquire about stock status and lead times before placing your order.

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

- Immunological Rev (1982) 74:29-56. (functional studies)
- J Immunol (2005) 175: 2357-2365. (Flow)

Product attributes

Antibody number	#2009
Antibody reactivity (target)	CD4
Antibody type	Primary
Host species	Rat
Clonality	Monoclonal
Clone	GK1.5
Isotype	IgG2b, kappa
Molecular weight	55 kDa
Synonyms	CD4 (L3T4); CD4; CD4+ Lymphocyte deficiency; included; Leu3; Ly-4; Lymphocyte antigen CD4; p55; T cell differentiation antigen L3T4; T-cell surface antigen T4/Leu-3; T-cell surface glycoprotein CD4
Entrez gene ID	12504
SwissProt	P06332
Unigene	2209
Immunogen	Mouse CTL clone V4
Antibody target cellular localization	Plasma membrane
Species reactivity	Mouse
Expected antibody applications	Flow, surface (published for clone), Functional studies (published for clone)
Positive control	Spleen, Thymus or Lymph Node.
Shipping condition	Room temperature
Storage Conditions	Note: store BSA-free antibodies at -10 to -35 °C, Store at 2 to 8 °C, Protect fluorescent conjugates from light
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
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Cell/tissue expression	Lymphocytes, Myeloid cells
Tumor expression	Leukemia/lymphoma

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405
BNC88	CF®488A	490/515	488	GFP, FITC
BNC68	CF®568	562/583	532, 561	RFP, TRITC
BNC94	CF®594	593/614	561	Texas Red®
BNC40	CF®640R	642/662	633-640	Cy®5
BNC47	CF®647	650/665	633-640	Cy®5
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

Dye Features
CF®405S Features
CF®488A Features
CF®568 Features
CF®594 Features
CF®640R Features
CF®647 Features

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