

Anti-Human CD4 Antibody (FITC)



Catalog Number: 10400-R005-F

General Information	
Immunogen:	Recombinant Human CD4 protein (Catalog#10400-H08H)
Reagents:	FITC-conjugated rabbit monoclonal antibody
Specificity:	Human CD4
Clone ID:	005
Ig Type:	Rabbit IgG
Applications:	Flow Cytometry, WB
Concentration:	5 µl/Test, 0.2 mg/ml
Formulation:	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
Storage:	2 °C - 8 °C in the dark

Preparation

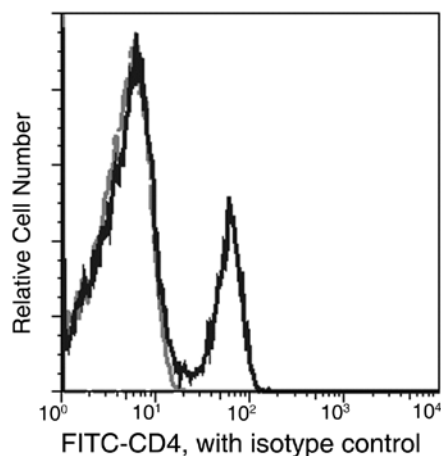
This antibody was obtained from a rabbit immunized with purified, recombinant Human CD4 (rh CD4; Catalog#10400-H08H; Met 1-Trp 390; NP_000607.1) and conjugated with FITC under optimum conditions, the unreacted FITC was removed.

Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze!** Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.

Applications

Flow Cytometry – Human lymphocytes were stained with FITC-anti human CD4-R005 (solid line) or FITC- rabbit IgG isotype control (dashed line).



Flow cytometric analysis of anti-human CD4 on human whole blood lymphocytes.

Flow cytometry was performed on a BD FACSCalibur flow cytometry system.

Please refer to www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html for technical protocols.

Western blot – This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human CD4 in WB.

Specificity

Human CD4

No cross-reactivity in ELISA with

Mouse CD4

Human CD32a

Human CD32b

Human CD16a

Human CD16b

Human CD64



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Background

T-cell surface glycoprotein CD4, also known as T-cell surface antigen T4/Leu-3, is a single-pass type I membrane protein. CD4 contains three Ig-like C2-type (immunoglobulin-like) domains and one Ig-like V-type (immunoglobulin-like) domain. CD4 is a glycoprotein expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells. It was discovered in the late 1970s and was originally known as leu-3 and T4 before being named CD4 in 1984. CD4 is a co-receptor that assists the T cell receptor (TCR) to activate its T cell following an interaction with an antigen presenting cell. Using its portion that resides inside the T cell, CD4 amplifies the signal generated by the TCR. CD4 interacts directly with MHC class II molecules on the surface of the antigen presenting cell via its extracellular domain. CD4 is a primary receptor used by HIV-1 to gain entry into host T cells. HIV infection leads to a progressive reduction of the number of T cells possessing CD4 receptors. Therefore, medical professionals refer to the CD4 count to decide when to begin treatment for HIV-infected patients.

Reference

1. Ryu SE, et al., 1994, *Structure* 2 (1): 59-74.
2. Isobe M, et al., 1986, *Proc. Natl. Acad. Sci.* 83 (12): 4399-402.
3. Ansari-Lari MA, et al., 1996, *Genome Res.* 6 (4): 314-26.
4. Hawash, et al., 2002, *Biochim. Biophys. Acta.* 1589 (2): 140-50.