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-20C
#25229**CD4 (D7D2Z) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-Bond, IHC-P	M R Hm	Endogenous	55	Rabbit IgG	#P06332	12504

Product Usage Information**Application**

Western Blotting
IHC Leica Bond
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:50 - 1:200
1:50 - 1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

For a carrier free (BSA and azide free) version of this product see product #27520.

Specificity/Sensitivity

CD4 (D7D2Z) Rabbit mAb recognizes endogenous levels of total mouse and rat CD4 protein. Non-specific staining in mouse kidney and liver has been observed.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala232 of mouse CD4 protein.

Background

Cluster of Differentiation 4 (CD4) is a glycoprotein composed of an amino-terminal extracellular domain (four domains: D1-D4 with Ig-like structures), a transmembrane part, and a short cytoplasmic tail. CD4 is expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells, and plays an important role in the development and activation of T cells. On T cells, CD4 is the co-receptor for the T cell receptor (TCR), and these two distinct structures recognize the Antigen-Major Histocompatibility Complex (MHC). Specifically, the D1 domain of CD4 interacts with the β2-domain of the MHC class II molecule. CD4 ensures specificity of the TCR-antigen interaction, prolongs the contact between the T cell and the antigen presenting cell, and recruits the tyrosine kinase Lck, which is essential for T cell activation (1).

Background References

1. Zamoyska, R. (1994) *Immunity* 1, 243-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

M: Mouse **R:** Rat **Hm:** Hamster

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