TECHNICAL DATA SHEET

CD4 MAb

Catalog Number: CSB0228

DESCRIPTION

Target:	CD4
Target aliases:	CD4mut, IMD79, OKT4D, T-Cell Surface Antigen T4/Leu-3
Fc isotype:	Mouse IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Marmoset
Extracellular epitope:	Yes
Fc modifications:	C-terminal Avitag[1], disabled Fc-γ receptor binding[2]
Source:	Recombinant CHO expression; purified by Protein A chromatography
Formulation:	Endotoxin Free PBS pH 7.4, sterile-filtered
Concentration:	1 mg/ml

1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc-γ receptor binding site to minimize non-specific antibody binding.

CD4 TARGET INFORMATION

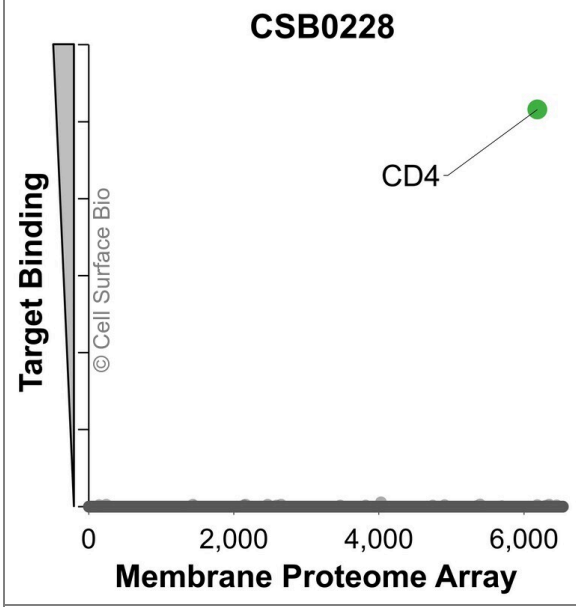
Cluster of differentiation 4 (CD4) is a type I transmembrane glycoprotein belonging to the immunoglobulin superfamily. It is primarily expressed on the surface of T helper lymphocytes, monocytes, macrophages, and dendritic cells, where it functions as a co-receptor that enhances T cell receptor signaling through interaction with major histocompatibility complex class II (MHC II) molecules. The extracellular region contains four immunoglobulin-like domains, while the cytoplasmic tail associates with the tyrosine kinase LCK to facilitate intracellular signaling. CD4 also serves as a receptor for the HIV-1 envelope glycoprotein gp120, enabling viral entry into host cells. (NCBI Gene: 920, UniProtKB/Swiss-Prot: P01730) Other names: CD4mut, IMD79, OKT4D, T-Cell Surface Antigen T4/Leu-3

SHIPPING AND STORAGE

Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA

Membrane Proteome Specificity

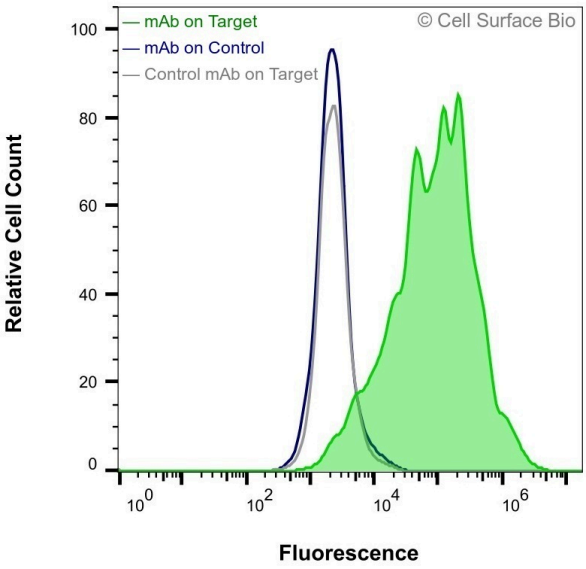


The specificity of CD4 Monoclonal Antibody (CSB0228) was tested on the Membrane Proteome Array™ and shown to be specific for CD4.

The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed Human cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

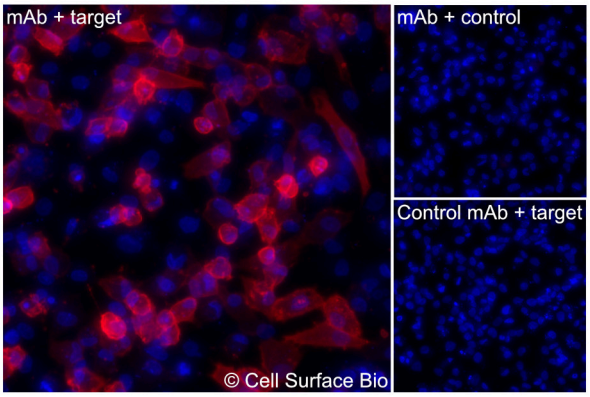
www.cellsurfacebio.com info@cellsurfacebio.com +1 (215) 987-0728

Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



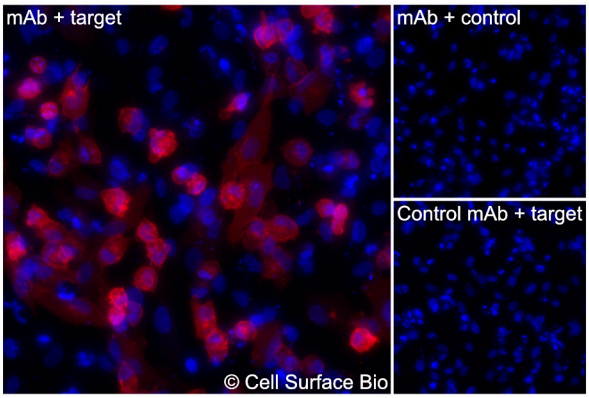
HEK-F cells transiently transfected with CD4 were stained with CD4 Monoclonal Antibody (CSB0228) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-F cells transiently transfected with an empty control vector were also stained with CD4 Monoclonal Antibody (CSB0228) (blue).

Applications	Conditions	Recommended concentration
Immunofluorescence, Extracellular	Fixed 4% paraformaldehyde	1 µg/ml



(Left) JS-1 cells transiently transfected CD4 were stained with CD4 Monoclonal Antibody (CSB0228) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with CD4 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with CD4 and stained with control MAb.

Applications	Conditions	Recommended concentration
Immunofluorescence, Intracellular	Fixed 4% paraformaldehyde, Permeabilized 0.1% Triton X-100	1 µg/ml



(Left) JS-1 cells transiently transfected CD4 were permeabilized and stained with CD4 Monoclonal Antibody (CSB0228) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with CD4 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with {{target} and stained with control MAb.