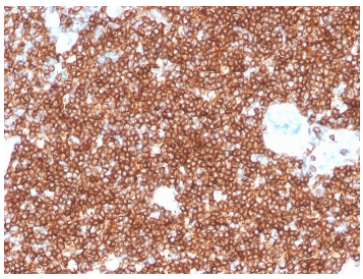
# CD4 Antibody / T Cell Activation Marker Antibody [clone rCD4/3930] (V8655)

| Catalog No. | Formulation | Size |
|---|---|---|
| V8655-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V8655-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V8655SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

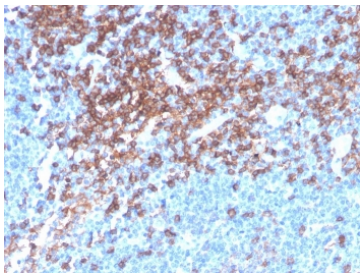
Recombinant MOUSE MONOCLONAL

**Bulk quote request**

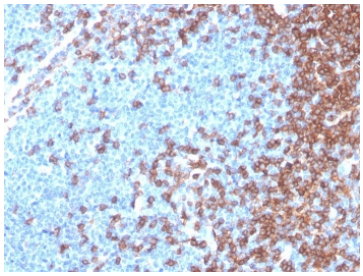
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Recombinant Mouse Monoclonal |
| **Isotype** | Mouse IgG2a, kappa |
| **Clone Name** | rCD4/3930 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P01730 |
| **Localization** | Cell surface |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT<br>Western Blot : 2-4ug/ml |
| **Limitations** | This CD4 Antibody / T Cell Activation Marker Antibody is available for research use only. |



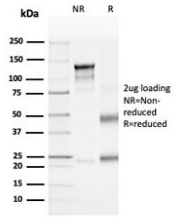
CD4 Antibody for IHC. Analysis of CD4 antibody staining in FFPE human tonsil tissue shows strong membranous labeling of CD4-positive T helper lymphocytes within interfollicular regions and surrounding lymphoid follicles, highlighting T cell-rich zones within lymphoid tissue. This T Cell Activation Marker Antibody (clone rCD4/3930) demonstrates robust detection of activated T cell populations consistent with the functional role of CD4 in antigen-driven immune activation. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling before testing.



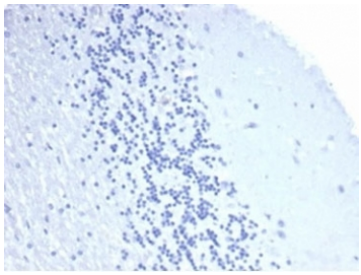
IHC staining of FFPE human lymph node with recombinant CD4 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



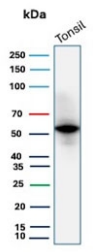
CD4 Antibody for IHC. Analysis of CD4 antibody staining in FFPE human lymph node tissue shows strong membranous labeling of CD4-positive T helper lymphocytes predominantly within paracortical regions, with relative sparing of B cell follicles, highlighting T cell-rich zones within lymphoid tissue. This T Cell Activation Marker Antibody (clone rCD4/3930) demonstrates clear detection of activated T cell populations consistent with CD4-mediated immune activation. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling before testing.




SDS-PAGE analysis of purified, BSA-free recombinant CD4 antibody as confirmation of integrity and purity.



Negative control: IHC staining of FFPE human brain tissue with recombinant CD4 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.




Western blot testing of human tonsil tissue with recombinant CD4 antibody (clone rCD4/3930). Expected molecular weight: 50-55 kDa.

## Description

CD4 molecule (CD4) is a type I transmembrane glycoprotein expressed primarily on T helper lymphocytes, with additional expression on subsets of monocytes, macrophages, and dendritic cells, where it functions as a co-receptor for antigen recognition through interaction with major histocompatibility complex class II molecules. CD4 Antibody / T Cell Activation Marker Antibody is used to detect CD4-positive immune cells and supports analysis of T cell activation processes in immunological research systems where antigen-driven signaling is a central focus.

CD4 antibody, also known as T helper cell marker antibody or CD4 surface receptor antibody, is closely associated with activation-dependent signaling events in T lymphocytes. CD4 interacts with the T cell receptor complex and recruits

intracellular kinases such as Lck, amplifying signaling cascades that lead to T cell activation, proliferation, and cytokine production. Detection of CD4-positive cells therefore provides direct insight into populations capable of responding to antigenic stimulation and participating in adaptive immune activation.

CD4 Antibody supports investigation of T cell activation by enabling identification of CD4-positive lymphocytes within heterogeneous immune populations. These cells play a central role in initiating and sustaining immune responses by producing cytokines that regulate downstream effector functions. Analysis of CD4 expression is therefore commonly used to assess immune activation status, evaluate signaling responses, and monitor functional changes in T cell populations under experimental conditions.

CD4 also contributes to stabilization of the immunological synapse between T cells and antigen-presenting cells, facilitating efficient signal transduction and coordinated activation. This functional role links CD4 expression directly to antigen-specific immune responses, making it a key marker for studying early activation events and signaling dynamics. CD4 Antibody targeting this receptor enables detailed analysis of activation-associated processes and supports studies of immune signaling pathways.

CD4 is localized to the plasma membrane, and its expression defines a major subset of T cells involved in immune activation and coordination. A CD4 antibody can be used in research applications to support detection of CD4-expressing lymphocytes, enabling investigation of T cell activation, signaling pathways, and functional immune responses in both normal physiology and disease models.

A full range of CD4 antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD4 Antibody collection page.

## Application Notes

Optimal dilution of the CD4 Antibody / T Cell Activation Marker Antibody should be determined by the researcher.

## Immunogen

A portion of amino acids 216-396 from the human protein was used as the immunogen for the recombinant CD4 antibody.

## Storage

Store the recombinant CD4 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

CD4 activation marker antibody, CD4 T cell activation antibody, CD4 immune activation antibody, CD4 signaling antibody