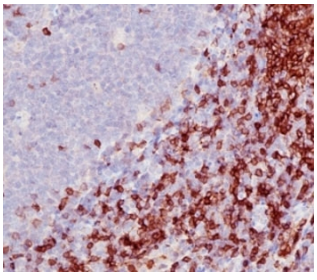
CD5 Antibody / Co-Signaling Receptor Modulator Antibody [clone SPM546] (V9103)

Catalog No.	Formulation	Size
V9103-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V9103-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V9103SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V9103IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SPM546
Purity	Protein G affinity chromatography
UniProt	P06127
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD5 Antibody / Co-Signaling Receptor Modulator Antibody is available for research use only.



CD5 Antibody for IHC. Immunohistochemistry analysis of CD5 antibody staining in FFPE human tonsil tissue using a co-signaling receptor modulator antibody, clone SPM546. Strong membranous staining is observed in interfollicular T lymphocytes with dense labeling of T cell zones surrounding germinal centers, while follicular B cell areas remain largely negative. The staining pattern highlights normal tonsillar architecture and reflects the role of CD5 in modulating co-signaling pathways that regulate lymphocyte activation and receptor signaling integration.

Description

CD5 (CD5) is a cell surface glycoprotein belonging to the scavenger receptor cysteine-rich (SRCR) superfamily, expressed on T lymphocytes and a subset of B cells where it functions as a co-signaling regulator. CD5 Antibody / Co-Signaling Receptor Modulator Antibody is used to detect CD5 in the context of receptor signaling integration, where it modulates signals initiated by antigen receptors and other co-receptors. CD5 antibody, also referred to as T cell surface glycoprotein CD5 antibody or LEU1 antibody, is widely used in studies of receptor signaling dynamics, pathway integration, and immune regulation.

CD5 plays a central role in modulating signaling downstream of the T cell receptor by acting as a co-receptor that adjusts signaling intensity. Rather than functioning as a primary signaling initiator, CD5 integrates signals from multiple receptor systems and influences how these signals are processed within the cell. This integration is critical for determining the outcome of antigen receptor engagement, including activation, proliferation, differentiation, and functional specialization of lymphocytes.

The co-signaling function of CD5 allows it to regulate signaling thresholds and maintain balance between activating and inhibitory pathways. By shaping signal strength, CD5 helps ensure that immune responses are proportional to the stimulus encountered. CD5 antibody enables detection of this regulatory molecule in studies focused on receptor cross-talk, signal integration, and pathway coordination within immune cells.

Expression of CD5 across T cells and select B cell subsets supports its involvement in multiple signaling networks, making it a valuable marker for studying how different receptor pathways interact within lymphocytes. Detection of CD5 provides insight into how signaling inputs are combined and balanced in complex cellular environments, particularly during immune activation and regulation.

In disease contexts, alterations in co-signaling pathways can contribute to immune dysregulation, cancer progression, and chronic inflammatory conditions. CD5 is implicated in these processes through its role in modulating signaling networks that control immune cell behavior. CD5 antibody supports investigation of these mechanisms by enabling analysis of receptor integration and signaling pathway dynamics.

CD5 is also relevant in studies of therapeutic targeting, where modulation of co-signaling pathways may influence immune responses. Detection of CD5 provides a means to study how signaling networks respond to experimental manipulation or treatment strategies.

This antibody is suitable for detecting CD5 in research applications focused on co-signaling and receptor regulation. Its ability to identify CD5 supports studies of signaling integration, receptor cross-talk, and immune system control across a range of experimental systems.

Because CD5 functions as a co-signaling modulator, CD5 antibody is widely used in studies of receptor signaling dynamics, immune regulation, and cellular response control.

A full range of CD5 antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD5 Antibody collection page.

Application Notes

The optimal dilution of the CD5 Antibody / Co-Signaling Receptor Modulator Antibody for each application should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.

2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human CD5 recombinant protein was used as the immunogen for this anti-CD5 antibody.

Storage

Store the anti-CD5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD5 co-signaling antibody, CD5 receptor modulator antibody, CD5 co-receptor antibody, CD5 signaling integration antibody, CD5 receptor regulation antibody