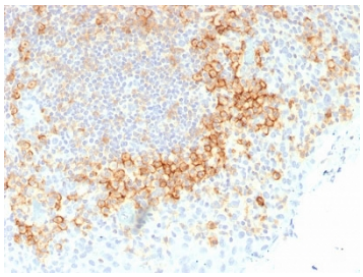
CD27 Antibody / T Cell Activation Marker Antibody [clone rLPFS2/1611] (V3558)

Catalog No.	Formulation	Size
V3558-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3558-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3558SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3558IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

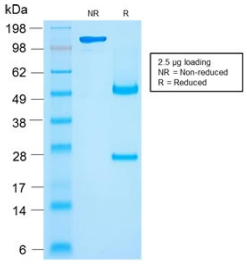
Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rLPFS2/1611
Purity	Protein G affinity chromatography
UniProt	P26842
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/10^6 cells Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD27 Antibody / T Cell Activation Marker Antibody is available for research use only.



CD27 Antibody Human Tonsil IHC. Immunohistochemistry analysis of CD27 / TNFRSF7 expression in FFPE human tonsil tissue using CD27 Antibody / T Cell Activation Marker Antibody clone rLPFS2/1611. Strong membranous HRP-DAB brown staining is observed in lymphocyte populations within interfollicular regions and surrounding germinal centers, consistent with CD27 expression on activated T cells and antigen-experienced lymphocytes, while adjacent non-lymphoid structures remain largely negative. The staining pattern highlights T cell activation zones and supports identification of functional immune compartments within tonsillar tissue. Heat-induced epitope retrieval was performed in 10 mM Tris buffer with 1 mM EDTA, pH 9, for 10-20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free CD27 Antibody / T Cell Activation Marker Antibody (clone rLPFS2/1611) as confirmation of integrity and purity.

Description

CD27, also known as TNF receptor superfamily member 7 (TNFRSF7), is a type I transmembrane receptor expressed on T lymphocytes, memory B cells, and subsets of natural killer cells, where it plays a central role in regulating immune activation, survival, and differentiation. CD27 Antibody / T Cell Activation Marker Antibody (clone rLPFS2/1611) is uniquely positioned for evaluating T cell activation states, enabling detection of CD27 as a costimulatory receptor that is dynamically involved in antigen-driven immune responses. CD27 antibody reagents are widely used in immunology research to assess lymphocyte activation and to monitor functional immune responses across a variety of biological systems.

CD27 antibody, also referred to as TNFRSF7 antibody or CD27 T cell activation antibody in the literature, functions through interaction with its ligand CD70, a key signaling axis that promotes T cell proliferation, cytokine production, and survival following antigen recognition. This costimulatory signaling pathway is critical for effective adaptive immune responses and supports the expansion and persistence of antigen-specific T cell populations. CD27 expression is maintained across multiple T cell subsets but is functionally linked to activation and differentiation status, making it a valuable marker for assessing immune responsiveness.

CD27 Antibody / T Cell Activation Marker Antibody (clone rLPFS2/1611) is particularly valuable for identifying activated T cells within heterogeneous immune populations, where CD27 expression contributes to defining antigen-experienced and functionally engaged lymphocyte subsets. In both tissue-based and suspension-based assays, detection of CD27 supports evaluation of immune activation in contexts such as infection, inflammation, and tumor immunity. The ability to resolve CD27-positive populations enables more precise characterization of immune responses and supports studies of T cell-mediated immunity.

In lymphoid tissues, CD27 expression is enriched within T cell zones and regions containing activated or memory lymphocytes, reflecting its role in sustaining immune responses. In peripheral blood and PBMC-based analyses, CD27 is frequently used to distinguish functional T cell subsets and to monitor changes associated with immune activation or therapeutic intervention. Its expression profile complements other activation and differentiation markers, making it a key component of multiparametric immune profiling strategies.

Beyond its role in normal immune function, CD27-mediated signaling has been implicated in pathological conditions, including chronic infection, autoimmune disease, and tumor immune evasion. Dysregulation of the CD27-CD70 axis can alter T cell activation thresholds and impact immune response quality, further emphasizing the importance of accurately

detecting CD27 in functional studies. Antibodies targeting CD27 therefore play a critical role in understanding immune signaling dynamics and identifying activation-associated changes in lymphocyte populations.

The recombinant mouse monoclonal clone rLPFS2/1611 antibody is designed to provide consistent and reproducible detection of CD27, supporting reliable analysis of T cell activation across diverse experimental systems. Its performance enables clear identification of CD27-positive cells and facilitates studies focused on immune activation, signaling pathways, and lymphocyte function.

Overall, CD27 Antibody / T Cell Activation Marker Antibody (clone rLPFS2/1611) provides robust detection of CD27 in the context of T cell activation, supporting detailed investigation of immune response mechanisms, lymphocyte activation states, and functional immune signaling pathways.

This antibody is part of a broader CD27 antibody collection designed to support diverse immunological research applications.

Application Notes

Optimal dilution of the CD27 Antibody / T Cell Activation Marker Antibody should be determined by the researcher.

1. 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 CD27 protein was used as the immunogen for the recombinant CD27 antibody.

Storage

Store the recombinant CD27 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

TNFRSF7 antibody, CD27 T cell activation antibody, CD27 costimulatory receptor antibody, CD27 immune activation marker antibody

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