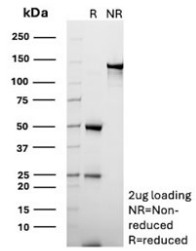
CD70 Antibody [clone BU69] (V3033)

Catalog No.	Formulation	Size
V3033-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3033-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3033SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (11)

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	BU69
Purity	Protein G affinity chromatography
UniProt	P32970
Localization	Cell surface
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-3ug/ml Immunohistochemistry : 1-2ug/ml for 30 min at RT
Limitations	This CD70 antibody is available for research use only.



SDS-PAGE analysis of purified, BSA-free CD70 Antibody Clone BU69 as confirmation of integrity and purity.

Description

CD70 antibody recognizes CD70 molecule, also known as CD27 ligand antibody and Tumor necrosis factor ligand superfamily member 7 antibody, a type II transmembrane protein belonging to the tumor necrosis factor ligand superfamily. CD70 is encoded by the CD70 gene and is primarily expressed on activated T cells, B cells, and dendritic cells, where it serves as the ligand for CD27. CD70 Antibody Clone BU69 targets this activation-induced costimulatory molecule and is widely cited in immunology and hematopathology research.

CD70 plays a critical role in adaptive immune regulation. Interaction between CD70 and CD27 promotes T cell proliferation, survival, and differentiation, particularly in the generation of effector and memory T cell populations. CD70-CD27 signaling also contributes to B cell activation and immunoglobulin production. Under physiologic conditions, CD70 expression is tightly controlled and transient, appearing following immune cell activation and diminishing after resolution of the immune response to prevent excessive immune stimulation and lymphoproliferation.

CD70 antibody studies have become increasingly important in cancer research. Aberrant or sustained CD70 expression has been documented in Hodgkin lymphoma, diffuse large B cell lymphoma, peripheral T cell lymphoma, and certain leukemias. CD70 expression has also been observed in solid tumors including renal cell carcinoma and nasopharyngeal carcinoma. Persistent CD70 signaling may contribute to tumor immune evasion, altered T cell differentiation, and immune exhaustion, making the CD70-CD27 axis a target for therapeutic antibody development and immune modulation strategies.

The CD70 protein contains an extracellular tumor necrosis factor homology domain responsible for receptor binding and a short intracellular cytoplasmic region. As a member of the tumor necrosis factor ligand superfamily, CD70 participates in bidirectional signaling events that influence immune activation and tolerance. The CD70 gene is located on chromosome 19p13.3, and its expression is regulated at both transcriptional and post-transcriptional levels to maintain immune homeostasis.

Clone BU69 is a well-characterized monoclonal antibody widely referenced in published studies evaluating CD70 expression in lymphoid tissues and malignancies. By specifically recognizing CD70, CD70 Antibody Clone BU69 supports research into T cell costimulation, tumor immunology, and CD70-directed therapeutic strategies.

Application Notes

Optimal dilution of the CD70 antibody should be determined by the researcher.

1. This mAb blocks the interaction between CD27 and CD70, and has been shown to inhibit T cell proliferation induced by dendritic cells.

Immunogen

The human WM-1 (Waldenstrom s macroglobulinemia) cell line was used as the immunogen for the CD70 antibody.

Storage

Store the CD70 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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