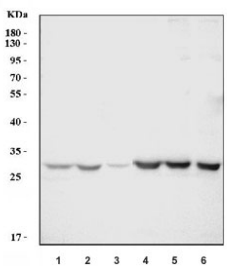
CD70 Antibody Rabbit Polyclonal (RQ6964)

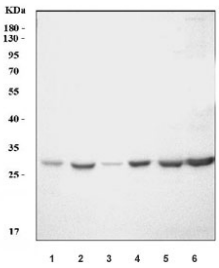
Catalog No.	Formulation	Size
RQ6964	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

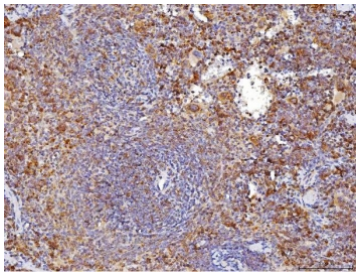
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O55237
Applications	Western blot: 0.5-1 ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This Cd70 antibody is available for research use only.



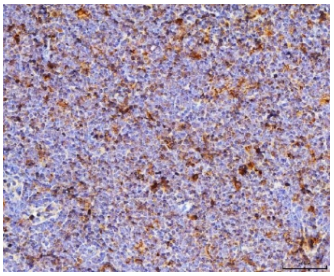
Western blot testing of mouse 1) spleen, 2) thymus, 3) lung, 4) RAW264.7, 5) Ana-1 and 6) SP2/0 cell lysate with Cd70 antibody. Predicted molecular weight ~21 kDa but may be observed at up to ~80 kDa due to glycosylation.



Western blot testing of 1) rat spleen, 2) rat thymus, 3) rat lung, 4) rat L6, 5) rat PC-12 and 6) mouse B16 cell lysate with Cd70 antibody. Predicted molecular weight ~21 kDa but may be observed at up to ~80 kDa due to glycosylation.



Immunohistochemistry of CD70 antibody in FFPE mouse spleen tissue. Mouse spleen demonstrates membranous and cytoplasmic HRP-DAB brown staining in activated lymphoid cells within splenic follicles and periarteriolar lymphoid regions, consistent with CD70 expression in activated T and B cell populations. This CD70 Antibody Rabbit Polyclonal was used following heat-induced epitope retrieval by boiling tissue sections in pH 8 EDTA buffer for 20 minutes and allowing sections to cool prior to staining.



Immunohistochemistry of CD70 antibody in FFPE mouse lymph node tissue. Mouse lymph node shows scattered membranous and cytoplasmic HRP-DAB brown staining in activated lymphoid cells within cortical and paracortical regions, consistent with CD70 expression in subsets of activated T and B cells. This CD70 Antibody Rabbit Polyclonal was used following heat-induced epitope retrieval by boiling tissue sections in pH 8 EDTA buffer for 20 minutes and allowing sections to cool prior to staining.

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 functions as a costimulatory ligand for CD27. CD70 Antibody Rabbit Polyclonal is designed to detect endogenous CD70 expression in studies of immune activation and lymphoid tissue biology.

CD70 plays a key role in regulating adaptive immune responses. Binding of CD70 to its receptor CD27 on T cells promotes T cell proliferation, survival, and differentiation, particularly in the generation of effector and memory T cell populations. CD70-CD27 signaling also enhances B cell activation and immunoglobulin production. Expression of CD70 is tightly regulated and typically transient, being induced upon cellular activation and downregulated after immune resolution to prevent excessive immune stimulation.

CD70 antibody research has become increasingly important in oncology and immunotherapy. Aberrant or sustained CD70 expression has been reported in several hematologic malignancies, including Hodgkin lymphoma, non-Hodgkin lymphoma, and certain leukemias. CD70 expression has also been observed in solid tumors such as renal cell carcinoma and glioblastoma. Persistent CD70 signaling may contribute to immune evasion, tumor progression, and T cell exhaustion, making the CD70-CD27 axis a target of therapeutic antibody development.

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

CD70 Antibody Rabbit Polyclonal recognizes multiple epitopes on the CD70 protein and supports detection of CD70 expression in diverse research applications. By targeting this activation-induced ligand, CD70 antibody facilitates investigation of T cell costimulation, tumor immunology, and immune checkpoint-related pathways.

Application Notes

Optimal dilution of the Cd70 antibody should be determined by the researcher.

Immunogen

Recombinant mouse Cd70 protein (amino acids C36-Q191) was used as the immunogen for the Cd70 antibody.

Storage

After reconstitution, the Cd70 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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