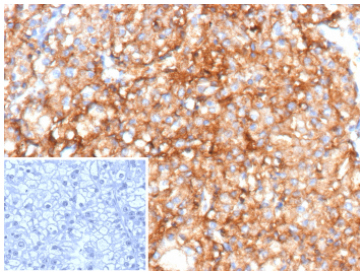
CD70 Molecule Antibody [clone CD70/12768R] (V6046)

Catalog No.	Formulation	Size
V6046-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6046-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6046SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD70/12768R
UniProt	P32970
Localization	Cell membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD70 molecule antibody is available for research use only.



Immunohistochemistry of CD70 Molecule Antibody in human renal cell carcinoma tissue. FFPE renal cell carcinoma shows strong membranous HRP-DAB brown staining in tumor epithelial cells, consistent with CD70 expression in malignant cells. Clone CD70/12768R was used for detection. Heat-induced epitope retrieval was performed by heating tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, at 95oC for 45 minutes followed by cooling at room temperature for 20 minutes. Inset shows PBS used in place of primary antibody as a secondary-only negative control.

Description

CD70 molecule antibody recognizes CD70 molecule, also referred to 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 the ligand for CD27. CD70 Molecule Antibody | Clone CD70/12768R targets this tightly regulated activation marker for research applications investigating immune signaling and lymphoid tissue biology.

CD70 plays a critical role in adaptive immune regulation through interaction with CD27 on T lymphocytes. Engagement of CD27 by CD70 promotes T cell proliferation, survival, and differentiation, particularly in the development 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 transient and activation-dependent, limiting excessive immune stimulation and preventing chronic lymphoproliferation.

CD70 antibody research has become increasingly relevant in oncology and tumor immunology. Aberrant or sustained CD70 expression has been documented in hematologic malignancies including Hodgkin lymphoma, diffuse large B cell 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 tumor progression, immune evasion, and T cell dysfunction, making the CD70-CD27 axis an important target in immunotherapeutic development.

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 signaling networks that shape immune activation and tolerance. The CD70 gene is located on chromosome 19p13.3, and its expression is regulated at transcriptional and post-transcriptional levels to maintain immune homeostasis.

Clone CD70/12768R is a recombinant rabbit monoclonal antibody that recognizes CD70 with high specificity in research models. By targeting CD70, this CD70 molecule antibody supports studies of T cell costimulation, tumor immunology, immune checkpoint biology, and CD27-mediated signaling pathways.

Application Notes

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

Immunogen

A recombinant fragment corresponding to the C-terminus of human CD70 protein (exact sequence is proprietary) was used as the immunogen for the CD70 molecule antibody.

Storage

CD70 molecule antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Copyright © NSJ Bioreagents. All rights reserved.