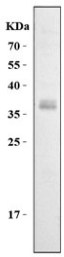
CD7 Antibody for Rodent WB / Mouse and Rat CD7 Western Blot Antibody (RQ6980)

Catalog No.	Formulation	Size
RQ6980	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	P50283
Applications	Western Blot : 0.5-1 ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This CD7 Antibody for Rodent WB / Mouse and Rat CD7 Western Blot Antibody is available for research use only.



CD7 Antibody for Rodent WB. Western blot analysis of rat thymus lysate shows a band at approximately 25-40 kDa, consistent with the predicted molecular weight of CD7 and reflecting glycosylation-dependent migration of this membrane protein, aligning with the known enrichment of CD7 in thymocytes during T cell development.

Description

Cluster of Differentiation 7 (CD7) is a transmembrane glycoprotein (CD7) expressed on T lymphocytes and natural killer (NK) cells, where it plays a role in immune signaling and T cell development. CD7 Antibody for Rodent WB / Mouse and Rat CD7 Western Blot Antibody is optimized for detecting CD7 expression in rodent systems, with demonstrated performance in rat thymus lysates, a tissue enriched in developing T cells and a central organ for T cell maturation.

CD7 antibody, also referred to as T-cell antigen CD7 antibody, is widely used in western blot to evaluate protein expression in immune tissues. In rodent thymus lysates, CD7 western blot reveals a band corresponding to CD7 expressed in thymocytes, providing strong biological relevance for studies of early T cell development and immune system ontogeny. The thymus represents a key model system for investigating T cell lineage commitment, making it an ideal context for CD7 protein detection.

This CD7 Antibody for Rodent WB is uniquely positioned for preclinical and experimental immunology research, where mouse and rat models are extensively used to study immune responses, disease mechanisms, and therapeutic interventions. Detection of CD7 in rodent samples supports investigations into T cell differentiation, signaling pathways, and immune system development in vivo.

The ability to detect CD7 across both mouse and rat systems enhances the versatility of this antibody, allowing researchers to apply it across multiple experimental models and species. Western blot analysis enables confirmation of CD7 expression at the protein level, complementing other techniques such as flow cytometry and gene expression analysis.

The polyclonal nature of the antibody provides recognition of multiple epitopes on the CD7 protein, which can enhance signal strength and improve detection sensitivity in western blot assays. This is particularly advantageous when working with tissue lysates, where protein abundance and epitope accessibility may vary due to denaturing conditions.

In addition to confirming protein presence, CD7 western blot in rodent systems can be used to assess developmental stage-specific expression, compare tissue-specific levels, and evaluate changes under experimental conditions such as genetic modification or pharmacologic treatment.

Overall, CD7 Antibody for Rodent WB provides reliable and sensitive detection of CD7 protein in mouse and rat systems, supporting protein expression analysis in thymus and other immune tissues and enabling detailed study of T cell biology in preclinical research models.

This antibody is part of a broader CD7 antibody collection designed to support T cell biology, immune profiling, and hematologic cancer research.

Application Notes

Optimal dilution of the CD7 Antibody for Rodent WB / Mouse and Rat CD7 Western Blot Antibody should be determined by the researcher.

Immunogen

Recombinant mouse protein (amino acids Q24-Q210) was used as the immunogen for the CD7 antibody.

Storage

After reconstitution, the CD7 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD7 rodent antibody, CD7 mouse antibody, CD7 rat antibody, CD7 thymus antibody, T-cell antigen CD7 antibody