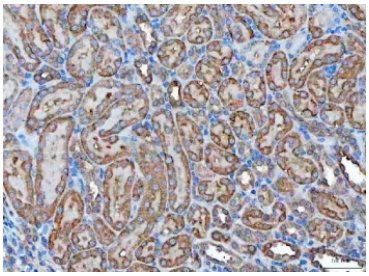
Kallikrein 7 Antibody for Rat IHC and WB Rabbit Polyclonal (RQ8295)

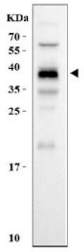
Catalog No.	Formulation	Size
RQ8295	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	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	P36373
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This Kallikrein 7 antibody is available for research use only.



Kallikrein 7 Antibody for Rat IHC and WB immunohistochemistry analysis of KLK7 in rat kidney tissue. FFPE rat kidney tissue was stained using a rabbit polyclonal Kallikrein 7 antibody suitable for rat IHC and WB. Heat induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA buffer for 20 minutes followed by cooling prior to staining. HRP-DAB brown chromogenic signal highlights KLK7-positive epithelial structures within renal tubules, while nuclei appear blue from hematoxylin counterstain. This staining pattern demonstrates detection of Kallikrein 7 (KLK7), also known as stratum corneum chymotryptic enzyme, in rat tissue and supports use of Kallikrein 7 Antibody for Rat IHC and WB for immunohistochemistry studies in rat experimental models.



Kallikrein 7 Antibody for Rat IHC and WB western blot analysis of KLK7 in rat kidney tissue. Rat kidney tissue lysate was resolved by SDS-PAGE and probed using a rabbit polyclonal Kallikrein 7 antibody suitable for rat IHC and WB. A band is detected at approximately 40 kDa, which is higher than the predicted molecular weight of Kallikrein 7 (KLK7) at approximately 29 kDa. This upward shift is consistent with glycosylation and post-translational processing commonly reported for secreted kallikrein family proteases. KLK7, also known as stratum corneum chymotryptic enzyme, is synthesized as a secreted preproenzyme and undergoes proteolytic maturation and glycosylation that can alter apparent migration during SDS-PAGE. Detection of KLK7 in rat tissue lysate supports the use of Kallikrein 7 Antibody for Rat IHC and WB Rabbit Polyclonal for western blot analysis in rat experimental models studying kallikrein protease biology and epithelial tissue function.

Description

Kallikrein 7 (KLK7) is a secreted serine protease encoded by the KLK7 gene and belongs to the tissue kallikrein family of trypsin-like serine proteases. Members of this protease family participate in diverse biological processes including epidermal homeostasis, extracellular matrix remodeling, and regulation of peptide signaling. Kallikrein 7, also referred to as stratum corneum chymotryptic enzyme (SCCE), is strongly associated with epidermal differentiation and desquamation processes occurring in the outermost layers of the skin. The Kallikrein 7 Antibody for Rat IHC and WB supports detection of KLK7 protein in rat tissues and protein lysates commonly used in dermatology, inflammation, and epithelial biology research.

KLK7 expression is particularly enriched in differentiated keratinocytes of the epidermis where it contributes to the proteolytic cleavage of corneodesmosomal components that regulate skin barrier turnover. This enzymatic activity is essential for controlled shedding of corneocytes during normal epidermal renewal. A Kallikrein 7 antibody is frequently used in studies examining epidermal differentiation, keratinocyte biology, and inflammatory skin disease mechanisms involving kallikrein protease activity.

KLK7 is widely studied in the context of skin barrier biology because dysregulated kallikrein protease activity has been associated with inflammatory skin conditions including atopic dermatitis and psoriasis. Elevated KLK7 activity can contribute to excessive corneodesmosome degradation and barrier disruption, highlighting the importance of precise KLK7 regulation in epidermal physiology. Detection of KLK7 protein using a Kallikrein 7 antibody allows investigators to evaluate epidermal protease expression patterns in experimental models of inflammatory and barrier associated disease.

In addition to its physiological role in skin, KLK7 has also been investigated as a biomarker and functional contributor in several epithelial cancers. Increased KLK7 expression has been reported in malignancies such as ovarian cancer, pancreatic cancer, and certain skin tumors where altered protease activity may influence tumor invasion, extracellular matrix remodeling, and cell signaling pathways. A Kallikrein 7 antibody can therefore support studies exploring protease driven mechanisms in tumor progression and epithelial tissue remodeling.

The KLK7 protein is synthesized as a secreted preproenzyme containing an N-terminal signal peptide followed by a pro-peptide region that must be proteolytically removed to generate the mature active enzyme. Mature KLK7 exhibits chymotrypsin-like proteolytic activity and functions primarily in extracellular or pericellular environments within stratified epithelia. Because KLK7 is secreted and accumulates within the upper epidermal layers, immunohistochemical staining commonly highlights keratinocyte populations involved in terminal differentiation. A rabbit polyclonal Kallikrein 7 antibody suitable for rat IHC and WB therefore supports investigation of epidermal protease regulation, skin barrier biology, and epithelial disease models where KLK7 expression and activity are of biological interest.

Application Notes

Optimal dilution of the Kallikrein 7 antibody should be determined by the researcher.

Immunogen

An E.coli-derived rat recombinant protein (K30-N238) was used as the immunogen for the Kallikrein 7 antibody.

Storage

After reconstitution, the Kallikrein 7 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

KLK7 antibody, Kallikrein-7 antibody, Stratum corneum chymotryptic enzyme antibody, SCCE antibody, Serine protease KLK7 antibody, Kallikrein related peptidase 7 antibody

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