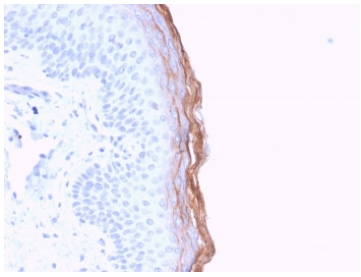
Kallikrein 5 Antibody KLK5/3841 / Epidermal Barrier Protease Antibody [clone KLK5/3841] (V8212)

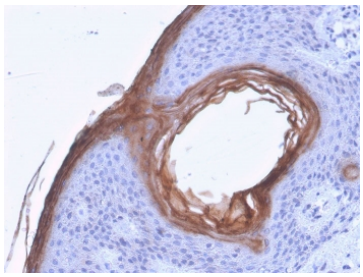
Catalog No.	Formulation	Size
V8212-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8212-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8212SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

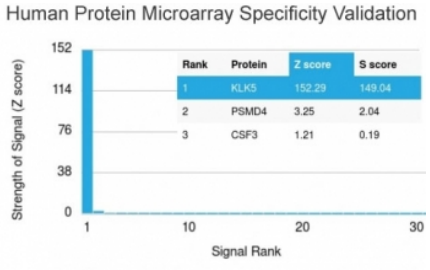
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	KLK5/3841
Purity	Protein G affinity chromatography
UniProt	Q9Y337
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Kallikrein 5 Antibody KLK5/3841 / Epidermal Barrier Protease Antibody is available for research use only.



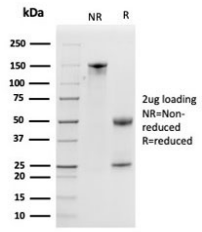
Kallikrein 5 Antibody KLK5/3841 Skin IHC. Immunohistochemistry analysis of FFPE human skin tissue stained with Kallikrein 5 Antibody demonstrates strong linear and cytoplasmic HRP-DAB brown staining within the superficial epidermal keratinocyte layers, consistent with KLK5-associated serine protease expression involved in epidermal barrier regulation and desquamation pathways. This epidermal barrier protease antibody highlights epithelial differentiation-associated signaling and cutaneous barrier homeostasis within stratified squamous epithelium. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



Kallikrein 5 Antibody KLK5/3841 Human Skin Tissue IHC. Immunohistochemistry analysis of FFPE human skin tissue stained with Kallikrein 5 Antibody demonstrates strong epithelial-associated HRP-DAB brown staining surrounding follicular and superficial epidermal structures, consistent with KLK5-associated serine protease expression involved in epithelial differentiation and epidermal barrier regulation. This epidermal barrier protease antibody highlights keratinocyte-associated proteolytic signaling pathways within cutaneous tissue compartments. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



Kallikrein 5 Antibody KLK5/3841 Protein Microarray Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Kallikrein 5 Antibody demonstrates highly selective recognition of KLK5 with exceptionally strong separation from non-target proteins across the tested human proteome. These results demonstrate the foremost specificity of the KLK5/3841 mAb and support highly specific detection of epithelial protease-associated signaling pathways and epidermal barrier regulatory proteins. The Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. The markedly elevated S-score separation observed for KLK5 supports preferential target recognition with minimal off-target binding across the tested human proteome.



SDS-PAGE analysis of purified, BSA-free Kallikrein 5 antibody (clone KLK5/3841) as confirmation of integrity and purity.

Description

Kallikrein 5 (KLK5), also known as stratum corneum tryptic enzyme (SCTE), is a secreted serine protease involved in epidermal barrier regulation, keratinocyte differentiation, desquamation, and proteolytic signaling within stratified epithelial tissues. KLK5 functions as a central regulator of skin homeostasis through activation of downstream kallikrein family proteases and protease-activated receptor signaling pathways associated with epithelial renewal and inflammatory responses. Kallikrein 5 Antibody KLK5/3841 is useful for investigations involving epidermal biology, epithelial differentiation, skin barrier regulation, and serine protease-associated signaling pathways.

Kallikrein 5 antibody, also referred to as KLK5 antibody, Stratum corneum tryptic enzyme antibody, and SCTE antibody in the literature, recognizes a secreted serine protease encoded on chromosome 19q13.41 within the kallikrein gene cluster. KLK5 expression is enriched in epidermal keratinocytes and epithelial tissues where it participates in corneodesmosome degradation, keratinocyte shedding, proteolytic cascade activation, and inflammatory signaling regulation. Altered KLK5 expression has been associated with skin barrier dysfunction, inflammatory skin disease, epithelial tumor biology, and dysregulated protease signaling pathways.

Kallikrein 5 Antibody / Epidermal Barrier Protease Antibody (clone KLK5/3841) is uniquely positioned for studies involving epithelial barrier biology and epidermal protease signaling pathways. This mouse monoclonal antibody demonstrates strong immunohistochemical detection together with highly selective HuProt(TM) microarray specificity validation against more than 19,000 full-length human proteins. The combined validation profile supports use of clone KLK5/3841 in investigations involving epidermal differentiation, epithelial barrier-associated signaling, and kallikrein protease pathway regulation.

Analysis of HuProt(TM) microarrays containing more than 19,000 individually purified full-length human proteins demonstrated highly selective recognition of KLK5 by clone KLK5/3841. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target binding across the tested human proteome. This specificity validation strategy supports highly selective detection of epithelial protease-associated signaling pathways in complex tissue environments.

KLK5 contributes directly to epidermal barrier maintenance through controlled proteolytic regulation of desquamation and epithelial turnover. In addition to cutaneous biology, KLK5-associated signaling has been linked to epithelial inflammatory responses, tumor-associated protease activity, extracellular matrix remodeling, and epithelial differentiation pathways. Because KLK5 expression is strongly associated with keratinocyte-associated proteolytic activity, it serves as an important marker for investigations involving epidermal barrier function and epithelial protease signaling.

This Kallikrein 5 Antibody supports research involving epidermal barrier regulation, epithelial differentiation, serine protease signaling, desquamation pathways, keratinocyte biology, inflammatory skin signaling, and epithelial-associated proteolytic regulation. Clone KLK5/3841 may be incorporated into immunohistochemistry and tissue-based investigations examining epithelial barrier-associated signaling in normal and diseased tissues.

Explore additional epithelial signaling and protease pathway markers on our Signal Transduction Antibodies page, including antibodies targeting epithelial differentiation, extracellular protease signaling, and barrier-associated cellular regulation.

Application Notes

Optimal dilution of the Kallikrein 5 Antibody KLK5/3841 / Epidermal Barrier Protease Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 36-177 from the human protein was used as the immunogen for the Kallikrein 5 Antibody KLK5/3841.

Storage

Store the Kallikrein 5 Antibody KLK5/3841 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Kallikrein 5 antibody, KLK5 antibody, Stratum corneum tryptic enzyme antibody, SCTE antibody, Epidermal serine protease antibody

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