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KLK7 Rabbit pAb

Catalog # AP99861

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P49862
Other Accession	P49862
Reactivity	Rat
Predicted	Pig, Human, Mouse, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	27525
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KLK7
Epitope Specificity	101/200/253
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the peptidase S1 family. Kallikrein subfamily.Contains 1 peptidase S1 domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The human tissue Kallikrein gene family encodes 15 serine proteases. All Kallikreins share structural similarities including cysteine residues, a catalytic triad of His, Asp, and Ser residues, typically five coding exons and varied intron phases. Kallikreins are predominantly secreted as inactive zymogens prior to activation by cleavage of an N-terminal peptide and all function extracellularly. Kallikreins can be activated autocatalytically, via other Kallikreins, or additional proteases. While structurally similar, Kallikrein family members have distinct functions and have key roles in many physiological and pathological processes. Many human tissue Kallikreins also show promise as cancer biomarkers, which may facilitate earlier detection and characterization of many forms of cancer. Kallikrein 7, also known as stratum corneum chymotryptic enzyme (SCCE) and PRSS6, is a chymotrypsin-like serine proteinase. Originally described from human skin as a serine protease involved in shedding of skin cells and remodeling if the skin, SCCE was later identified as Kallikrein 7. Kallikrein 7 is found at the highest levels in the skin, often complexed with the endogenous serpins SLPI or elafin and kallikrein 7 can be found complexed to a number of different proteinase inhibitors. In addition to skin, Kallikrein 7 has been found in the kidney, esophagus, neuronal tissues, amniotic fluid, saliva, breast milk, urine, synovial fluid, seminal plasma and serum. Kallikrein 7 has been reported to be decreased in the CSF of Alzheimer's patients and message levels of KLK7 were decreased in adenocarcinoma. In skin, overexpression of hK7 has been shown to cause a form of dermatitis and in psoriasis hK7 is expressed in higher levels than controls. The skin adhesive proteins corneodesmosin and desmocollin 1 have been reported to be substrates of Kallikrein 7, as is interleukin 1 and the insulin B-chain.

Additional Information

Gene ID	5650
Other Names	PRSS6; SCCE; hK7; KLK7_HUMAN; KLK7; Serine protease 6; Stratum corneum chymotryptic enzyme (hSCCE); 3.4.21.117; kallikrein related peptidase 7; kallikrein 7 (chymotryptic, stratum corneum)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KLK7
Synonyms	PRSS6, SCCE
Function	May catalyze the degradation of intercellular cohesive structures in the cornified layer of the skin in the continuous shedding of cells from the skin surface. Specific for amino acid residues with aromatic side chains in the P1 position. Cleaves insulin A chain at '14-Tyr-|-Gln-15' and insulin B chain at '6-Leu-|-Cys-7', '16-Tyr-|-Leu-17', '25-Phe-|-Tyr-26' and '26-Tyr-|-Thr-27'. Could play a role in the activation of precursors to inflammatory cytokines.
Cellular Location	Secreted. Note=In ovarian carcinoma, secreted and also observed at the apical membrane and in cytoplasm at the invasive front
Tissue Location	Abundantly expressed in the skin and is expressed by keratinocytes in the epidermis. Also expressed in the brain, mammary gland, cerebellum, spinal cord and kidney. Lower levels in salivary glands, uterus, thymus, thyroid, placenta, trachea and testis. Up- regulated in ovarian carcinoma, especially late-stage serous carcinoma, compared with normal ovaries and benign adenomas (at protein level)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.