

KLK4 Antibody
Catalog # ASC11686**Specification**

KLK4 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	O9Y5K2
Other Accession	NP_004908 , 89142741
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 28 kDa
Application Notes	Observed: 31kDa KDa KLK4 antibody can be used for detection of KLK4 by Western blot at 1 - 2 µg/ml.

KLK4 Antibody - Additional Information

Gene ID 9622

Target/Specificity

KLK4; KLK4 antibody is human specific. At least three isoforms of KLK4 are known to exist.

Reconstitution & Storage

KLK4 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

KLK4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KLK4 Antibody - Protein Information

Name KLK4

Synonyms EMSP1, PRSS17, PSTS

Function

Has a major role in enamel formation (PubMed:15235027). Required during the maturation stage of tooth development for clearance of enamel proteins and normal structural patterning of the crystalline matrix (By similarity).

Cellular Location

Secreted.

Tissue Location

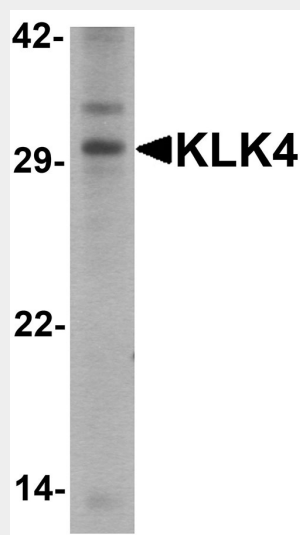
Expressed in prostate.

KLK4 Antibody - Protocols

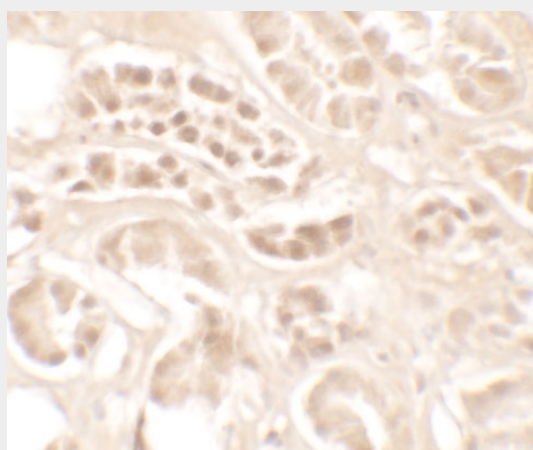
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

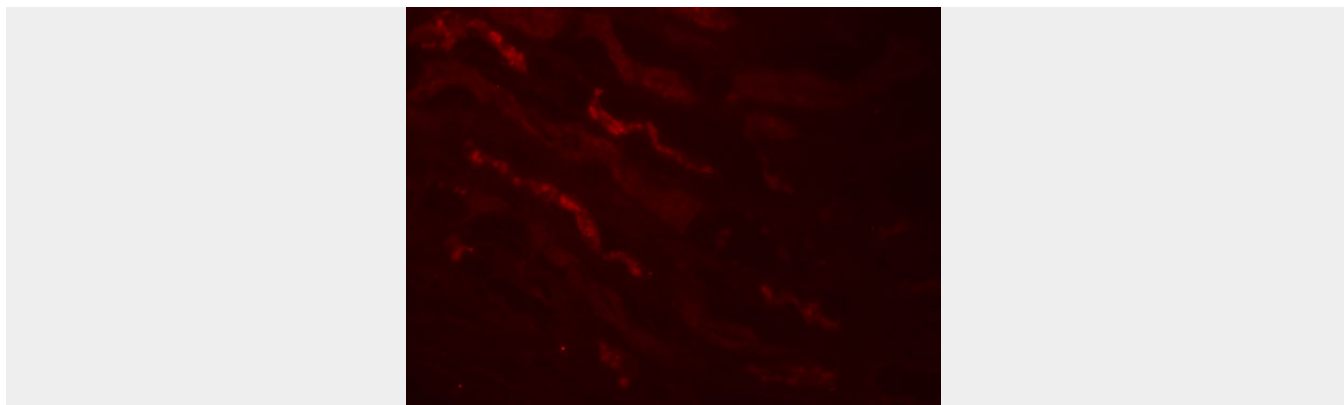
KLK4 Antibody - Images



Western blot analysis of KLK4 in human kidney tissue lysate with KLK4 antibody at 1 µg/ml.



Immunohistochemistry of KLK4 in human kidney tissue with KLK4 antibody at 5 µg/mL.



Immunofluorescence of KLK4 in human kidney tissue with KLK4 antibody at 20 µg/mL.

KLK4 Antibody - Background

Kallikreins (KLKs) belong to the serine protease family of proteolytic enzymes having diverse physiological functions (1). Kallikrein 4 (KLK4), also known as prostase or EMSP1 (enamel matrix serine protease 1), contains one peptidase S1 domain and the expression in prostate is regulated by hormone (1,2). Many kallikreins are implicated in carcinogenesis and have potential as novel cancer and other disease biomarkers (3). KLK4 may have additional roles such as functioning as one of the two major enamel proteases identified that process enamel matrix proteins. Defects in KLK4 are the cause of amelogenesis imperfecta hypomaturation type 2A1 (AI2A1) (4).

KLK4 Antibody - References

Stephenson SA, Verity K, Ashworth LK, et al. Localization of a new prostate-specific antigen-related serine protease gene, KLK4, is evidence for an expanded human kallikrein gene family cluster on chromosome 19q13.3-13.4. *J. Biol. Chem.* 1999; 274:23210-4.

Myers SA and Clements JA. Kallikrein 4 (KLK4), a new member of the human kallikrein gene family is up-regulated by estrogen and progesterone in the human endometrial cancer cell line, KLE. *J. Clin. Endocrinol. Metab.* 2001; 86:2323-6.

Kontos CK, Chantzis D, Papadopoulos IN, et al. Kallikrein-related peptidase 4 (KLK4) mRNA predicts short-term relapse in colorectal adenocarcinoma patients. *Cancer Lett.* 2013; 330:106-12

Shimizu-Okabe C, Yousef GM, Diamandis EP, et al. Expression of the kallikrein gene family in normal and Alzheimer's disease. *Neuroreport* 2001; 12:27447-51.