

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 12 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human (rh) Kallikrein 8, rhKallikrein 10, rhKallikrein 11, and rhKallikrein 15 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 12 Ala18-Asn248 Accession # Q9UKR0
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

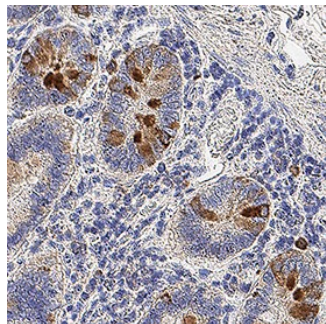
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Kallikrein 12 (Catalog # 3095-SE)
Immunohistochemistry	3-15 µg/mL	Immersion fixed paraffin-embedded sections of Human Duodenum
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kallikrein 12 (Catalog # 3095-SE), see our available Western blot detection antibodies

DATA

Immunohistochemistry



Detection of Kallikrein 12 in Human Duodenum.

Kallikrein 12 was detected in immersion fixed paraffin-embedded sections of Human Duodenum using Sheep Anti-Human Kallikrein 12 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3095) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # [VC006](#)). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # [VCTS021](#)). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells in intestinal glands. View our protocol for IHC Staining with [VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human tissue Kallikrein 12, encoded by the KLK12 gene, is a secreted serine protease that belongs to the human tissue kallikrein family. It is present in many tissues, such as salivary gland, stomach and breast. KLK12 displays trypsin-like enzymatic activity. This activity can be inhibited by Serpin F2 (R&D Systems, Catalog # 1470-PI). The physiological functions of KLK12 still remain unclear. Its expression is modulated by steroid hormones and is down-regulated in breast cancer (2). Human KLK12 has three splice variants resulting from alternative splicing of the 3' end. The KLK12 produced by the R&D Systems corresponds to the full-length classical form, also known as isoform 2 (1). The amino acid sequence of human KLK12 is 80%, 77%, 71% and 66% to that of bovine, canine, mouse, and rat. The recombinant human KLK12 can be autoactivated under the conditions described in the Activity Assay Protocol. The active enzyme has the N-terminal sequence of I₂₂FNGTECGRNS.

References:

1. Yousef, G.M. *et al.* (2000) Genomics. **69**:331.
2. Yousef, G.M. and E.P. Diamandis (2001) Endocrine Rev. **22**:184.