

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Kallikrein 7 in Western blots. Detects human Kallikrein 7 in direct ELISAs. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) Kallikrein 1, rhKallikrein 3, rhKallikrein 4, rhKallikrein 5, rhKallikrein 8, rhKallikrein 9, rhKallikrein 11, rhKallikrein 13 and rhKallikrein 14 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 7 Glu23-His252 Accession # P49862
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 as a 0.2 µm filtered solution in PBS.

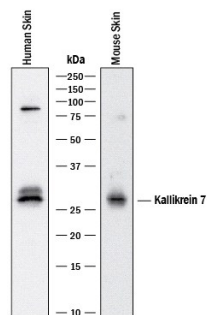
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kallikrein 7 (Catalog # 2624-SE), see our available Western blot detection antibodies

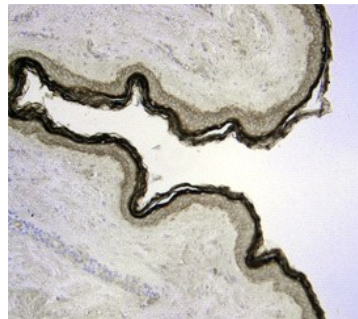
DATA

Western Blot



Detection of Human and Mouse Kallikrein 7 by Western Blot. Western blot shows lysates of human skin tissue and mouse skin tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Kallikrein 7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2624) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Kallikrein 7 at approximately 27-30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Kallikrein 7 in Human Skin. Kallikrein 7 was detected in immersion fixed paraffin-embedded sections of human skin using 1.7 µg/mL Goat Anti-Human Kallikrein 7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2624) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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 7 (hK7), also known as stratum corneum chymotryptic enzyme (SCCE), is a member of the human tissue kallikrein family. Full-length hK7 consists of 253 amino acids, with a signal peptide (residues 1-22), short pro peptide (residues 23-29) and mature chain (residues 30-252) (1). Predominantly expressed in the skin, a major physiological function of hK7 is to regulate the desquamation process through proteolysis of the intercellular adhesive structures between corneocytes (2). Thus, it is related to some inflammatory skin diseases, such as psoriasis and chronic itchy dermatitis (3, 4). Studies have shown that one potential physiological activator for hK7 is hK5, another member of the human tissue Kallikrein family. Along with hK14, these three kallikreins form a proteolytic cascade in the stratum corneum (5). The purified, secreted rhK7 corresponds to the pro form. When activated by thermolysin, it displays enzymatic activity towards a fluorogenic synthetic peptide described in the Activity Assay Protocol. This activity can be inhibited by rhSerpin A1, A3, A4, and A5 (R&D Systems, Catalog # 1268-PI, 1295-PI, 1669-PI, and 1266-PI).

References:

1. Hansson, L. *et al.* (1994) *J. Bio. Chem.* **269**:19420.
2. Caubet, C. *et al.* (2004) *J. Invest. Dermatol.* **122**:1235.
3. Ekholm, E. and T. Egelrud (1999) *Arch. Dermatol. Res.* **291**:195.
4. Hansson, L. *et al.* (2002) *J. Invest. Dermatol.* **118**:444.
5. Brattsand, M. *et al.* (2004) *J. Invest. Dermatol.* **124**:198.