

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) KLK-3, -4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14, rhHGFA, rhFactorVII, rhFactorXI, rhThrombin or rhUPA-1 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 323803
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 1 Ile25-Ser262 Accession # NP_002248
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	1 µg/mL	Recombinant Human Kallikrein 1 (Catalog # 2337-SE) under non-reducing conditions only
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kallikrein 1 (Catalog # 2337-SE)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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

Kallikrein 1 (KLK1), also known as tissue kallikrein, is a member of human tissue kallikrein family (1). The best known physiological function of KLK1 is the cleavage of kininogen to release the vasoactive kinin peptide (bradykinin or lysyl-bradykinin), which regulates vasodilation, blood pressure reduction, smooth muscle relaxation and contraction, pain induction and inflammation (2). In addition, KLK1 may play a role in angiogenesis and tumorigenesis (2). Human KLK1 precursor contains a signal peptide (residues 1 to 18), a short pro peptide (residues 19 to 24) and a mature chain (residues 25 to 262). The purified rhKLK1 contains the mature chain and the propeptide from human KLK5. After being activated by thermolysin, rhKLK1 is active against a fluorogenic peptide substrate described above.

References:

1. Yousef, G.M. and E.P. Diamandis (2001) *Endocrine Rev.* **22**:184.
2. Chao, J. (2004) in *Handbook of Proteolytic Enzymes*, Barrett, A.J. *et al.* eds. pp. 1577.