

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kallikrein 2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Kallikrein 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or B1 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 426723
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 2 Ile25-Pro261 Accession # P20151
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 2 (Catalog # 4104-SE).
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kallikrein 2 (Catalog # 4104-SE), see our available Western blot detection antibodies
Neutralization	Measured by its ability to neutralize Recombinant Human Kallikrein 2 (2 µg/mL, Catalog # 4104-SE) cleavage of the fluorogenic peptide substrate PFR-AMC (0.1 mM). The Neutralization Dose (ND ₅₀) is typically 3.4 µg/mL.	

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 2 (KLK2) is a secreted serine protease that is highly expressed in the human prostate gland (1). It is also known as the prostate-specific glandular kallikrein. The enzyme is highly specific for cleavage after arginine residues. KLK2 is able to activate the urokinase-type plasminogen activator (2). KLK2 is inhibited by serpins such as protein C inhibitor, antichymotrypsin, and plasminogen activator inhibitor 1 (3-5). KLK2 is structurally related to KLK3, the prostate-specific antigen (PSA). Like PSA, KLK2 is considered to be a biomarker for prostate cancer (6).

References:

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2. Frenette, G. *et al.* (1997) Int. J. Cancer **71**:897.
3. Deperthes, D. *et al.* (1995) Biochim. Biophys. Acta **1245**:311.
4. Grauer, L.S. *et al.* (1998) J. Androl. **19**:407.
5. Mikolajczyk S.D. *et al.* (1999) Cancer Res. **59**:3927.
6. Sardana, G. *et al.* (2008) Clin. Chem. **54**:1951.