

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Kininogen Heavy Chain in direct ELISAs and Western blots. It reacts with HK, Kininogen, and the heavy chain, but not with the light chain alone. In direct ELISAs, no cross-reactivity with recombinant human (rh) Cystatin A, B, C, D, E, S, SA, SN, rhFetuin A, rhFetuin B, rhHPRG, recombinant mouse Kininogen, or rhKininostatin is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 236012
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Kininogen Gln19-Ser644 (Ile581Thr) Accession # P01042
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	Recombinant Human Kininogen High Molecular Weight (HKa) (Catalog # 1569-PI)
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kininogen High Molecular Weight (HKa) (Catalog # 1569-PI), <a href="#">see our available Western blot detection antibodies</a>

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Kininogen, also known as α<sub>2</sub>-thiol proteinase inhibitor, is a multi-function protein. There are two alternatively spliced forms, designated as the high molecular weight (HMW) and low MW (LMW) forms (1). The HMW form is synthesized as a 644 amino acid (aa) precursor with a signal peptide (aa 1-18). The mature chain (aa 19-644) is further processed into the heavy (aa 19-380) and the light (aa 390-644) chains. The active peptide bradykinin (aa 381-389) is released, which has a variety of functions including muscle contraction, hypotension and inflammation. The heavy chain consists of three cystatin-like domains, which are responsible for inhibiting cysteine proteases. The light chain consists of a His-rich domain, which is associated with the clotting activity. In comparison to the HMW form, the LMW Kininogen (427 aa) has the same sequence in its heavy chain and bradykinin, but a different sequence in its light chain (aa 402-427). The LMW form is not involved in blood clotting.

### References:

1. Takagaki, Y. *et al.* (1985) J. Biol. Chem. **260**:8601.