

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Kininogen in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 207025
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Kininostatin Lys438-Ser531 Accession # P01042
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.

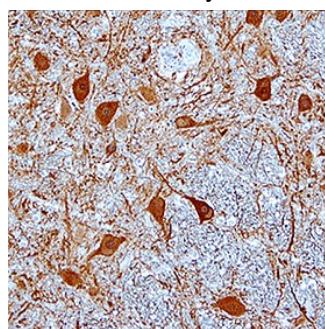
APPLICATIONS

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 Kininogen High Molecular Weight (HKa) (Catalog # 1569-PI)
Immunohistochemistry	0.5-25 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Kininogen High Molecular Weight (HKa) (Catalog # 1569-PI), see our available Western blot detection antibodies

DATA

Immunohistochemistry



Kininogen in Human Brain. Kininogen was detected in immersion fixed paraffin-embedded sections of human brain (substantia nigra) using Mouse Anti-Human Kininogen Monoclonal Antibody (Catalog # MAB1569) at 0.5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies and processes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

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

Kininogen, also known as α₂-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.