Mouse Plasma Kallikrein/KLKB1 Antibody

Monoclonal Rat IgG_1 Clone # 337801

Catalog Number: MAB2498

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Plasma Kallikrein/KLKB1 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) Kallikrein/KLKB1, rhKallikrein 1, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, recombinant mouse HGFA, rhFactor VI, rhFactor X, rhFactor XI, rhThrombin, or rhuPA is observed.
Source	Monoclonal Rat IgG_1 Clone # 337801
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Kallikrein/KLKB1 Gly20-Ala638 Accession # NP_032481
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 Mouse Plasma Kallikrein/KLKB1 (Catalog # 2498-SE) under non-reducing conditions only

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.** ● 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

Plasma kallikrein, a serine protease, is synthesized in the liver and circulates in the plasma by binding to high molecular weight (HMW) kininogen or as a free zymogen. Once activated by its physiological activator, factor XII, it displays endopeptidase activity towards peptide bonds after arginine (preferred) and lysine. It cleaves HMW kininogen, its major physiological substrate, to release the potent vasodilator peptide bradykinin. It is also able to cleave a number of inactive precursor proteins to generate active products, such as plasminogen and prourokinase. Thus, it plays an important role in blood pressure regulation, fibrinolysis, and neutrophil activation (1). Mouse plasma kallikrein precursor contains a signal peptide (aa 1-19) and a pro form sequence (aa 20-638). Upon activation, the pro form is converted to a heavy chain and a light chain, which is linked by disulfide bonds and the latter contains the catalytic domain (2).

References:

1. Colman, R. (2004) in *Handbook of Proteolytic Enzymes*, Barrett, A.J. *et al.* eds. p. 1644.
2. Seidah, N. *et al.* (1990) DNA and Cell Biology **9**:737.

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