

Catalog No. LF-MA0204

MONOCLONAL ANTIBODY



Anti- Kininogen precursor (24F9)

Background : Kininogens are precursors for kinin, and the two main types of them are high-molecular weight kininogen (HMWK) and low-molecular weight kininogen (LMWK). HMWK also known as the Williams-Fitzgerald-Flaujeac factor is a protein from the blood coagulation system as well as the kinin-kallikrein system. It acts mainly as a cofactor on coagulation and inflammation, and has no intrinsic catalytic activity. LMWK is produced locally by numerous tissues, and secreted together with tissue kallikrein.

Kininogens are synthesized in the liver and circulate in the plasma and other body fluids.

The kinins are pharmacologically active polypeptides released in the tissues and body fluids as a result of the enzymatic action of kallikreins on kininogens. The kinin family includes bradykinin (BK) (Arg-Pro-Pro-gly-Phe-Ser-Pro-Phe-Arg), kallidin (Lys-Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe-Arg) and methionyl-lysyl-BK (Met-Lys-Arg-Pro-Pro-Gly-Phe-Arg). Kallidin and methionyl-lysyl-BK are converted into BK by aminopeptidases present in plasma and urine. Active tissue kallikrein acts on LMWK to release kallidin. The plasma kallikrein is found in circulation in an inactive form, which is known as prekallikrein or Fletcher factor.

BK and kallidin act through activation of G-protein-coupled constitutive B(2) or inducible kinin B(1) receptors linked to signaling pathways involving increased intracellular Ca concentrations and/or release of mediators including arachidonic acid metabolites, NO and EDHF (Endothelium-derived hyperpolarizing factor). In the cardiovascular system, the kallikrein-kinin system exerts a fine control of vascular smooth muscle tone and arterial blood pressure, and plays a significant cardioprotective effect.

Immunogen: Protein purified from Human plasma

Clone number : 24F9

Host : Mouse

Size : 100 µl

Isotype : IgG1, k

Compositon : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Positive control : Human plasma

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

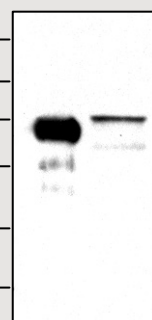
Human
+

Mouse
NT

Rat
NT

M.W.(kDa)

175
83
62
47.5
32.5
25



Immunoblot Analysis of human plasma protein

Lane 1 : kininogen precursor protein isolated from human plasma

Lane 2 : Human plasma (#4, 10ul)

Applications :

ELISA

Western blotting (1: 2,000)

Background Reference :

- 1) Sainz IM, Pixley RA, and Colman RW., 2007, Thromb Haemost. 98(1):77-83.
- 2) Sharma JN., 2006, Arch Med Res. 37(3):299-306
- 3) Marcondes S and Antunes E., 2005, Curr Med Chem Cardiovasc Hematol Agents. 3(1):33-44.

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