

# Mouse Anti-Human Kallikrein 1 Monoclonal Antibody

**Cat. No.** CAB11569MH    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Mouse Monoclonal Antibody to Human Kallikrein 1

**Species**                      Human

**Source**                        Mouse

**Antigen Description**

Kallikreins are members of a highly conserved serine proteases that are involved in the post-translational modification of many polypeptides, and plays a role in diverse physiological processes. Fifteen kallikreins whose encoding genes are located in a cluster on chromosome 19 have been reported, and growing evidence suggests that many kallikreins are implicated in carcinogenesis and some have potential as novel cancer and other disease biomarkers. Human kallikrein 1 (KLK1), also known as tissue kallikrein, is functionally conserved in its capacity to cleave the low molecular weight kinogen to release the vasoactive peptide, Lys-bradykinin which plays a role in regulating vasodilation, blood pressure reduction, smooth muscle relaxation and contraction, pain induction and inflammation. Human KLK1 precursor consists of a signal peptide, a short pro peptide and a mature chain. Moreover, KLK1 was suggested to be associated with angiogenesis and tumorigenesis.

**Specificity**

Human KLK1 / Kallikrein 1. No cross-reactivity in ELISA with Human KLK4 / Kallikrein 4, Human KLK7 / Kallikrein 7, Human KLK8 / Kallikrein 8, Human KLK11 / Kallikrein 11, Human KLK13 / Kallikrein 13, Human HGFA / HGF Activator, Human FA11, Human Urokinase / PLAU / u-PA, Human FX / Coagulation Factor X, Human cell lysate (293 cell line)

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<b>Immunogen</b>	Recombinant Human KLK1 / Kallikrein 1 Protein
<b>Isotype</b>	Mouse IgG1
<b>Cross Reactivity</b>	7B5B3
<b>Clone</b>	8C6C4
<b>Applications</b>	WB; ELISA
<b>Dilution</b>	Western blot: This antibody can be used at 0.1-0.2 µg/mL with the appropriate secondary reagents to detect KLK1-His in WB. Using a DAB detection system, the detection limit for KLK1-His is approximately 8 ng/lane under non-reducing conditions and 2 ng/lane under reducing conditions. Direct ELISA: This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect KLK1-His. The detection limit for KLK1-His is approximately 0.0195 ng/well.
<b>Preparation</b>	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human KLK1 / Kallikrein 1 (rh KLK1 / Kallikrein 1; NP_002248.1; Met 1 - Ser 262 B). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
<b>Format</b>	0.2 µm filtered solution in PBS with 5% trehalose
<b>Storage</b>	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70 °C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

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**GENE INFORMATION**

<b>Gene Name</b>	KLK1 kallikrein 1 [ Homo sapiens ]
<b>Official Symbol</b>	KLK1
<b>Synonyms</b>	KLK1; kallikrein 1; kallikrein 1, renal/pancreas/salivary; kallikrein-1; Klk6; tissue kallikrein; glandular kallikrein 1; kallikrein serine protease 1; kidney/pancreas/salivary gland kallikrein; hK1; KLKR;
<b>Gene ID</b>	3816
<b>mRNA Refseq</b>	NM_002257
<b>Protein Refseq</b>	NP_002248
<b>UniProt ID</b>	P06870
<b>Chromosome Location</b>	19q13.3
<b>Pathway</b>	Blood Clotting Cascade, organism-specific biosystem; Endocrine and other factor-regulated calcium reabsorption, organism-specific biosystem; Endocrine and other factor-regulated calcium reabsorption, conserved biosystem;
<b>Function</b>	peptidase activity; serine-type endopeptidase activity;

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