KNG1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	KNG1, Monoclonal Antibody
Full Product Name	KNG1 (BDK, KNG, Kininogen-1, Alpha-2-thiol Proteinase Inhibitor, Fitzgerald Factor, High Molecular Weight Kininogen, Williams-Fitzgerald-Flaujeac Fa Kininogen-1 Heavy Chain, T-kinin, Ile-Ser-Bradykinin, Bradykinin, Kallidin I, Lysyl-bradykinin, Kalli
Product Gene Name	anti-KNG1 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	4A1
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human KNG1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery o product, centrifuge the original vial prior to removing the cap.
Molecular Weight	71,957 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (186435098..186462199). Location: 3q27
OMIM	228960
3D Structure	ModBase 3D Structure for P01042
Immunogen	Partial recombinant corresponding to aa322-427 from human KNG1 (NP_000884.1) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	VARETTCSKESNEELTESCETKKLGQSLDCNAEVYVVPWEKKIYPTVNCQPLGMISLMKRPPGFSPFRSSRIGEIKEETTSHLRSCEYKGRPPKAGAEPAS
Conjugate	MaxLight405
Product Categories/Family for anti-KNG1 antibody	Antibodies; Proteins
Applications Tested/Suitable for anti-KNG1 antibody	FLISA, Immunoprecipitation (IP), Western Blot (WB)
Application Notes for anti-KNG1 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-KNG1 antibody	This gene uses alternative splicing to generate two different proteins- high molecular weight kininogen (HMWK) and low molecular weight kininogen (LM HMWK is essential for blood coagulation and assembly of the kallikrein-kinin system. Also, bradykinin, a peptide causing numerous physiological effect released from HMWK. In contrast to HMWK, LMWK is not involved in blood coagulation. Three transcript variants encoding different isoforms have bee for this gene.
Other Notes	Small volumes of anti-KNG1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necess briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and add dry ice fee may apply.
Searchable Terms for KNG1 purchase	MBS6190891 is an antibody targeting KNG1. Also known as KNG1 (BDK, KNG, Kininogen-1, Alpha-2-thiol Proteinase Inhibitor, Fitzgerald Factor, High Molecular Weight Kininogen, Williams-Fitzgerald-Flaujeac Factor, Kininogen-1 Heavy Chain, T-kinin, Ile-Ser-Bradykinin, Bradykinin, Kallidin I, Lysyl-bra Kalli. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KNG1. It may not necessarily be applicable to this product.

NCBI GI #	4504893
NCBI GeneID	3827
NCBI Accession #	NP_000884.1
UniProt Primary Accession #	P01042
UniProt Secondary Accession #	P01043; Q53EQ0; Q6PAU9; Q7M4P1; A8K474; B2RCR2
UniProt Related Accession #	P01042
GenBank Nucleotide #	NM_000893
NCBI Official Full Name	kininogen-1 isoform 2
NCBI Official Synonym Full Names	kininogen 1
NCBI Official Symbol	KNG1
NCBI Official Synonym Symbols	BK; BDK; KNG
UniProt Protein Name	Kininogen-1
UniProt Synonym Protein Names	Alpha-2-thiol proteinase inhibitor; Fitzgerald factor; High molecular weight kininogen; HMWK; Williams-Fitzgerald-Flaujeac factorCleaved into the following 6 chains:Kininogen-1 heavy chainT-kinin; Alternative name(s):; Ile-Ser-BradykininBradykinin; Alternative name(s):; Kallidin ILysyl-bradykinin; Alternative name(s):; Kallidin II
Protein Family	Kininogen
UniProt Gene Name	KNG1
UniProt Synonym Gene Names	BDK; KNG; HMWK
UniProt Entry Name	KNG1_HUMAN
NCBI Protein Information	kininogen-1; HMWK; bradykinin; fitzgerald factor; high molecular weight kininogen; alpha-2-thiol proteinase inhibitor; williams-Fitzgerald-Flaujeac factor

UniProt Comments for KNG1	KNG1: (1) Kininogens are inhibitors of thiol proteases; (2) HMW-kininogen plays an important role in blood coagulation by helping to position optimally prekallikrein and factor XI next to factor XII; (3) HMW-kininogen inhibits the thrombin- and plasmin- induced aggregation of thrombocytes; (4) the active peptide bradykinin that is released from HMW-kininogen shows a variety of physiological effects: (4A) influence in smooth muscle contraction, (4B) induction of hypotension, (4C) natriuresis and diuresis, (4D) decrease in blood glucose level, (4E) it is a mediator of inflammation and causes (4E1) increase in vascular permeability, (4E2) stimulation of nociceptors (4E3) release of other mediators of inflammation (e.g. prostaglandins), (4F) it has a cardioprotective effect (directly via bradykinin action, indirectly via endothelium-derived relaxing factor action); (5) LMW-kininogen inhibits the aggregation of thrombocytes; (6) LMW- kininogen is in contrast to HMW-kininogen not involved in blood clotting. Defects in KNG1 are the cause of high molecular weight kininogen deficiency (HMWK deficiency). HMWK deficiency is an autosomal recessive coagulation defect. Patients with HWMK deficiency do not have a hemorrhagic tendency, but they exhibit abnormal surface-mediated activation of fibrinolysis. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Cell adhesion; Secreted; Inhibitor; Secreted, signal peptide; Contractile; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 3q27 Cellular Component: extracellular space; plasma membrane; extracellular region Molecular Function: heparin binding; protein binding; zinc ion binding; cysteine protease inhibitor activity; receptor binding Biological Process: negative regulation of proteolysis; platelet activation; elevation of cytosolic calcium ion concentration; smooth muscle contraction; platelet degranulation; positive regulation of apoptosis; negative regulation of blood coagulation; negative regulation of cell adhesion; blood coagulation; inflammatory response; vasodilation; blood coagulation, intrinsic pathway Disease: High Molecular Weight Kininogen Deficiency
Research Articles on KNG1	**1.** these results suggest that D5(H) of high molecular weight kininogen may modulate cell adhesion and invasion together with actinin-4.
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