Data Sheet (Cat.No.TMPJ-00734)

TargetMol

Kininogen 1 Protein, Human, Recombinant (Isoform2, His)

General Information

Synonyms:	KNG1;High Molecular Weight Kininogen;BDK;HMWK;KNG;Williams-Fitzgerald-Flaujeac Factor;Kininogen-1;lpha-2-Thiol Proteinase Inhibitor;Fitzgerald Factor
Protein Construction:	Gln19-Ser427
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P01042-2
Molecular Weight:	61 KDa (reducing condition)
AA Sequence:	Gln19-Ser427

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Hac-NaAC, 150 mM NaCl, pH 4.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Kininogen-1 is a secreted protein which contains three cystatin domains. There are two alternatively spliced forms, designated as the high molecular weight (HMW) and low MW (LMW) forms. Kininogen-1 plays a critical role in blood coagulation and inflammatory response. Kininogens are inhibitors of thiol proteases. Kininogen-1 participates in blood coagulation by helping to position optimally prekallikrein and factor XI next to factor XII, also

inhibits the thrombin- and plasmin-induced aggregation of thrombocytes. The active peptide bradykinin that is released from Kininogen-1 shows a variety of physiological effects: influence in smooth muscle contraction, induction of hypotension, natriuresis and diuresis, decrease in blood glucose level. It is a mediator of inflammation and causes increase in vascular permeability, stimulation of nociceptors release of other mediators of inflammation. It has a cardioprotective effect. LMW-kininogen inhibits the aggregation of thrombocytes and doesn't involved in blood clotting.

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