Recombinant Mouse Kininogen-1/KNG1 Protein (His Tag)

Catalog Number: PKSM040662

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

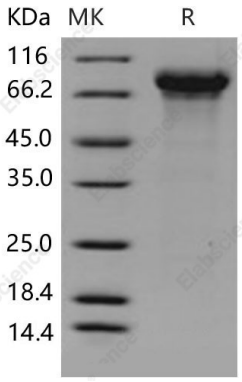
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse Kininogen-1/KNG1 protein Glu 21-Ser 480, with an C-terminal His
Calculated MW	52.5 kDa
Observed MW	70-80 kDa
Accession	NP_001095882.1
Bio-activity	Measured by its ability to inhibit papain cleavage of a fluorogenic peptide substrate Z-FR-AMC (R &D Systems, Catalog # ES009). The IC_{50} value is < 5 nM.

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20 mM Tris, 100 mM NaCl, pH 7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Kininogen-1, also known as high molecular weight kininogen, williams-Fitzgerald-Flaujeac factor, Alpha-2-thiol proteinase inhibitor, Fitzgerald factor, KNG1 and BDK, is a secreted protein which contains threecystatin domains. Kininogen-1/KNG1 is a protein from the blood coagulation system as well as the kinin-kallikrein system. It is a protein that adsorbs to the surface of biomaterials that come in contact with blood. Kininogen-1/KNG1 circulates throughout the blood and quickly adsorbs to the material surfaces. Kininogen-1/KNG1 is one of the early participants of the intrinsic pathway of coagulation, together with Factor XII (Hageman factor) and prekallikrein. Kininogen-1/KNG1 is one of thekininogens, a class of proteins. As with many other coagulation proteins, the protein was initially named after the patients in whom deficiency was first observed. When the clinical data were combined, it turned out that all patients, in fact, had a deficiency of the same protein. Defects in KNG1 are the cause of high molecular weight kininogen deficiency (HMWK deficiency) which 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.

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