

Recombinant Human HRG/HPRG Protein

Catalog No.: RP01787 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3273	P04196

Tags

C-His

Synonyms

HPRG; HRGP; THPH11;HRG

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
58.50 kDa	75 kDa

Endotoxin
<0.001 EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

Histidine-rich glycoprotein, also known as HRG and HPRG, is a glycoprotein located in plasma and platelets and contains an unusually large amount of histidine and proline. The specific functions of HRG remain unclear, but it is known that the protein binds heme, dyes, and divalent metal ions. It inhibits rosette formation and interacts with heparin, thrombospondin, and plasminogen. Two of the protein's effects, the inhibition of fibrinolysis, and the reduction of inhibition of coagulation indicate a potential prothrombotic effect. HPRG is evolutionarily, functionally, and structurally related to cleaved high molecular weight kininogen (HKa), an anti-angiogenic polypeptide that stimulates apoptosis of proliferating endothelial cells through binding to cell-surface tropomyosin. The antiangiogenic activity of the multidomain plasma protein HPRG is localized to its histidine-proline-rich (H/P) domain and has recently been shown to be mediated, at least partially, through binding to cell-surface tropomyosin in fibroblast growth factor-2-activated endothelial cells.

Basic Information

Description

Recombinant Human HRG/HPRG Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val19-Lys525) of human HRG/HPRG (Accession #NP_000403.1) fused with and a 6xHis tag at the C-terminus.

Bio-Activity

Measured by its ability to support the adhesion of MOLT-4 human acute lymphoblastic leukemia cells. Human HPRG immobilized at 1 μg/ml (100 μl/well) will induce >73.04% MOLT4 cell adhesion (1 x 10E5 cells/well) in the presence of 7.5 μg/ml Concanvalin A.

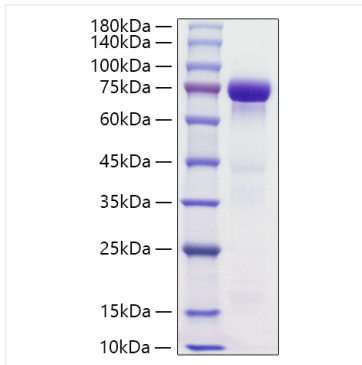
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human HRG/HPRG Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 75 kDa.