Recombinant Rat HRG Protein, His-tagged

Cat. No. HRG-425R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat HRG (EDL78064.1) (Met1-Lys525) was expressed with a polyhistidine tag at the C-terminus.
Species	Rat
Source	HEK293
ProteinLength	Met1-Lys525
Description	Histidine-rich glycoprotein, also known as HRG and HPRG, is a glycoprotein l centigradeated in plasma and platelets, and contains an unusually large amount of histidine and proline. In human, five distinct domains are recognized in the mature HPRG molecule. There are two N-terminal cystatin-like modules (aa 19- 254) and one His-Pro-rich region (aa 350- 497) that is flanked by two Pro-rich segments (aa 276-321 and 498- 525). The His-Pro-rich region contains 10 tandem repeats with an HHPHG motif, and the N- and C-termini are linked by a disulfide bond. 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 l

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	centigradealized 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.
Predicted N Terminal	Leu 19
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant rat HRG consists of 518 amino acids and predicts a molecular mass of 58.6 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Purity	> 90 % as determined by SDS-PAGE.
Storage	Samples are stable for up to twelve months from date of receipt at-70 centigrade. Store it under sterile conditions at-20 centigrade to-80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	Hrg histidine-rich glycoprotein [Rattus norvegicus]
Official Symbol	HRG
Synonyms	HRG; histidine-rich glycoprotein; histidine-rich glycoprotein 1; histidine-proline-rich glycoprotein; HPRG; HRG1;

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Gene ID	171016
mRNA Refseq	NM_133428
Protein Refseq	NP_596919

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