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HRG Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7327a

Specification

HRG Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P04196

HRG Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 3273

Other Names
Histidine-rich glycoprotein, Histidine-proline-rich glycoprotein, HPRG, HRG

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7327a was selected from the N-term region of human HRG. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HRG Antibody (N-term) Blocking Peptide - Protein Information

Name HRG

Function
Plasma glycoprotein that binds a number of ligands such as heme, heparin, heparan sulfate, thrombospondin, plasminogen, and divalent metal ions. Binds heparin and heparin/glycosaminoglycans in a zinc-dependent manner. Binds heparan sulfate on the surface of liver, lung, kidney and heart endothelial cells. Binds to N-sulfated polysaccharide chains on the surface of liver endothelial cells. Inhibits rosette formation. Acts as an adapter protein and is implicated in regulating many processes such as immune complex and pathogen clearance, cell chemotaxis, cell adhesion, angiogenesis, coagulation and fibrinolysis. Mediates clearance of necrotic cells through enhancing the phagocytosis of necrotic cells in a heparan sulfate-dependent pathway. This process can be regulated by the presence of certain HRG ligands such as heparin and zinc ions. Binds to IgG subclasses of immunoglobins containing kappa and lambda light chains with different affinities regulating their clearance and inhibiting the formation of insoluble immune complexes. Tethers plasminogen to the cell surface. Binds T-cells and alters the cell morphology.

Modulates angiogenesis by blocking the CD6-mediated antiangiongenic effect of thrombospondins, THBS1 and THBS2. Acts as a regulator of the vascular endothelial growth factor (VEGF) signaling pathway; inhibits endothelial cell motility by reducing VEGF-induced complex formation between PXN/paxillin and ILK/integrin-linked protein kinase and by promoting inhibition of VEGF-induced tyrosine phosphorylation of focal adhesion kinases and alpha-actinins in endothelial cells. Also plays a role in the regulation of tumor angiogenesis and tumor immune surveillance. Normalizes tumor vessels and promotes antitumor immunity by polarizing tumor-associated macrophages, leading to decreased tumor growth and metastasis.

Cellular Location
Secreted.

Tissue Location
Expressed in macrophages and in malignant cells. Expressed by the liver and secreted in plasma (at protein level)

HRG Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

HRG Antibody (N-term) Blocking Peptide - Images

HRG Antibody (N-term) Blocking Peptide - Background

HRG contains two cystatin-like domains and is located in plasma and platelets. The physiological function has not been determined but it is known that the protein binds heme, dyes and divalent metal ions. It can inhibit 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. Mutations in this gene lead to thrombophilia due to abnormal histidine-rich glycoprotein levels.

HRG Antibody (N-term) Blocking Peptide - References

Vanwildemeersch,M., Olsson,A.K. J. Biol. Chem. 281 (15), 10298-10304 (2006)Jones,A.L., Poon,I.K. J. Biol. Chem. 280 (42), 35733-35741 (2005)Hennis,B.C. and Kluft,C. Nucleic Acids Res. 19 (15), 4311 (1991)