

## Histidine Rich Glycoprotein (HRG) Active Protein | HRG active protein

Active Histidine Rich Glycoprotein (HRG)

| CATALOG # | HOST      | REACTIVITY           | APPLICATIONS                                |
|-----------|-----------|----------------------|---------------------------------------------|
| AAA146623 | 293F cell | Homo sapiens (Human) | Invitro Assay, Activity Assay, Cell Culture |

### PRODUCT SYNONYMS

Histidine Rich Glycoprotein (HRG); Active Histidine Rich Glycoprotein (HRG); HPRG; HRGP; Histidine-Proline Rich Glycoprotein; Thrombophilia Due To Elevated HRG; HRG active protein

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | 293F cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Reactivity                                     | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Purity/Purification                            | >98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Form/Format                                    | PBS, pH7.6, containing 5% trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Applicable Applications for HRG active protein | Invitro Assay, Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Source                                         | Eukaryotic expression                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Residues                                       | Val19~Lys525                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Tags                                           | N-terminal His-tag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Endotoxin Level                                | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Predicted isoelectric point                    | 7.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Phenomenon explanation:                        | <p>The possible reasons that the actual band size differs from the predicted are as follows:</p> <ol style="list-style-type: none"> <li>1. Splice variants: Alternative splicing may create different sized proteins from the same gene.</li> <li>2. Relative charge: The composition of amino acids may affects the charge of the protein.</li> <li>3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.</li> <li>4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.</li> <li>5. Polymerization of the target protein: Dimerization, multimerization etc.</li> </ol> |
| Usage                                          | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Preparation and Storage                        | <p><b>Storage:</b></p> <p>Avoid repeated freeze/thaw cycles.</p> <p>Store at 2-8 degree C for one month.</p> <p>Aliquot and store at -80 degree C for 12 months.</p> <p><b>Stability Test:</b></p> <p>The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.</p>                                                                                                                      |

IMAGES



WB (Western Blot)

Western BlotSample: Recombinant HRG, Human;Antibody: Rabbit Anti-Human HRG Ab



SDS\_PAGE

Sample: Active recombinant HRG, Human



Gene Sequencing

Gene Sequencing (extract



Bioactivity

HRG (Histidine-rich glycoprotein) is a plasma glycoprotein which is distinguished by its high content of histidine and proline. HRG binds a number of ligands such as heme, heparin, heparan sulfate, thrombospondin, plasminogen, and divalent metal ions. Thus, a functional binding ELISA assay was constructed to detect the association of rhHRG with heparin. Briefly, Microtiter wells were coated with OVA-conjugated-heparin. rhHRG were diluted serially in 0.01M PBS (pH 7.4). Duplicate samples of 100uL were then transferred to the coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-HRG PAb, then aspirated and washed 3 times. After incubation with HRP labeled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate Solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately.The binding activity of rhHRG with heparin was shown in Figure 1 and this effect was in a dose dependent manner.



Sequence

ADDITIONAL INFORMATION

|                                                  |                |
|--------------------------------------------------|----------------|
| Product Categories/Family for HRG active protein | Active Protein |
|--------------------------------------------------|----------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 4504489                                                                                                            |
| NCBI GeneID                      | 3273                                                                                                               |
| NCBI Accession #                 | NP_000403.1                                                                                                        |
| NCBI GenBank Nucleotide #        | NM_000412.4                                                                                                        |
| UniProt Accession #              | P04196; B9EK35; D3DNU7                                                                                             |
| Molecular Weight                 | Predicted Molecular Mass: 59.3kDa<br>Accurate Molecular Mass: 75kDa as determined by SDS-PAGE reducing conditions. |
| NCBI Official Full Name          | histidine-rich glycoprotein                                                                                        |
| NCBI Official Synonym Full Names | histidine rich glycoprotein                                                                                        |
| NCBI Official Symbol             | HRG                                                                                                                |
| NCBI Official Synonym Symbols    | HPRG; HRGP; THPH11                                                                                                 |
| NCBI Protein Information         | histidine-rich glycoprotein                                                                                        |
| UniProt Protein Name             | Histidine-rich glycoprotein                                                                                        |

|                            |      |
|----------------------------|------|
| UniProt Gene Name          | HRG  |
| UniProt Synonym Gene Names | HPRG |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/293f-cell-homo-sapiens-human-active-protein/histidine-rich-glycoprotein-hrg/146623>