

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human HPRG in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant mouse HPRG is observed.                                                                                                       |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human HPRG<br>Val19-Lys525<br>Accession # P04196                                                                                                                                                                            |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

Human histidine-rich glycoprotein (HPRG) is a multidomain, monomeric, secreted, 67-75 kDa member of the cystatin superfamily of molecules (1, 2). Its name derives from the fact that 26% of its amino acids (aa) are histidine and proline. In human, it is synthesized as a 525 aa precursor that contains an 18 aa signal sequence and a 507 aa mature region (3). Five distinct domains are recognized in the mature 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) (3, 4). 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 (3, 5, 6). Human HPRG is only 60% aa identical to mouse HPRG. There are multiple ligands for HPRG. These include small molecular weight molecules (metal ions; heme), hemostatic molecules (heparan sulfate; TSP; plasminogen), and immune system components (T cells; macrophages) (1, 5). About 50% of plasma plasminogen circulates bound to HPRG. Upon immobilization to cell surface tropomyosin in a Zn<sup>2+</sup>-dependent manner, it is converted to plasmin by tPA (7-9). HPRG also shows antiangiogenic activity on endothelial cells (10).

## PRODUCT SPECIFIC NOTICES

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