Human HPRG Antibody

Monoclonal Mouse IgG_{2B} Clone # 227901

Catalog Number: MAB1869

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HPRG in direct ELISAs and Western blots. In direct ELISAs, this antibody does not cross-react with recombinant human (rh) Cystatin B, C, D, E/M, S, A, SA, SN, rhFetuin A, B, rmHPRG, rhKininogen, or rhKininostatin.
Source	Monoclonal Mouse IgG_{2B} Clone # 227901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human HPRG Val19-Lys525 Accession # P04196
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human HPRG (Catalog # 1869-HP)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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^{++}-dependent manner, it is converted to plasmin by tPA (7 - 9). HPRG also shows antiangiogenic activity on endothelial cells (10).

References:

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