Mouse HPRG Alexa Fluor® 405-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 242425

Catalog Number: FAB1905V

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse HPRG in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 20% cross-reactivity with recombinant human (rh) HPRG is observed and no cross-reactivity with rhCystatin D, F, S, SA, SN, recombinant
Source	Monoclonal Rat IgG_{2A} Clone # 242425
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse HPRG Leu19-Lys525 Accession # BAB33094
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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

Mouse 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 22% of its amino acids (aa) are histidine and proline. In mouse, it is synthesized as a 525 amino acid (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 and one His-Pro-rich region that is flanked by two Pro-rich segments (3, 4). The His-Pro-rich region contains multiple tandem repeats with a GHHPH motif, while the N- and C-termini are linked by a disulfide bond (3, 5, 6). Mouse HPRG is only 60% aa identical to human HPRG, and 79% aa identical to rat 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). Finally, it binds to cytoplasmic ligand(s) exposed during cellular necrosis, and facilitates macrophage phagocytosis (11).

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