

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HGF Activator in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant mouse HGF Activator is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human HGF Activator Gln36-Ser655 Accession # Q04756.1
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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

Hepatocyte Growth Factor Activator (HGFA) is a serine endopeptidase that cleaves at the peptide bond between Arg494 and Val495 of single-chain human HGF precursor, generating the active heterodimer (1). HGFA is produced and secreted by the liver and normally circulates in the blood as an inactive zymogen (2, 3). The zymogen has a weak affinity for heparin but acquires a strong affinity for heparin upon activation that is linked to blood coagulation. This property may ensure the local action of this enzyme at the site of tissue injury (3). Human HGFA precursor (655 amino acid residues) contains several predicted domains including a signal peptide (residues 1-30), a propeptide (residues 31-372), and a mature and active form (residues 373-655) that is further processed into a short chain (residues 373-407) and a long chain (residues 408-655). The short chain and the long chain (catalytic domain) may form a disulfide bond linked dimer. HGFA can be activated by thrombin (R&D Systems, Catalog # 1473-SE) or thermolysin (R&D Systems, Catalog # 3097-ZN) (4). The active protease can be inhibited by HGFA inhibitors (HAIs). Two HAIs, HAI-1 and HAI-2, are known in mouse and human. HAI-1 is not only an inhibitor, but also a specific acceptor of active HGFA, acting as a reservoir of this enzyme on the cell surface (5).

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