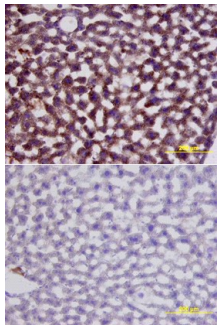
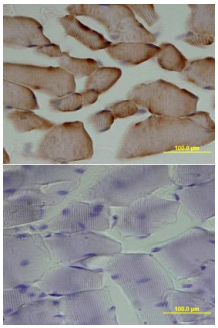


DESCRIPTION	
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse HGF in ELISAs and Western blots. In sandwich immunoassays, less than 0.5% cross-reactivity with recombinant human (rh) HGF, rhHGF R, recombinant mouse (rm) HGF R, rhHGF-A, and rmHGF-A is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse HGF (R&D Systems, Catalog # 2207-HG) Gln33-Leu728 Accession # Q53WS5
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse HGF (Catalog # 2207-HG)
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Mouse HGF Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Mouse HGF Antibody (Catalog # AF2207)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Mouse HGF Biotinylated Antibody (Catalog # BAF2207)
<b>Standard</b>		Recombinant Mouse HGF (Catalog # 2207-HG)

DATA	
<p><b>Immunohistochemistry</b></p>  <p><b>HGF in Mouse Liver.</b> HGF was detected in perfusion fixed frozen sections of mouse liver using Goat Anti-Mouse HGF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2207) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for <a href="#">Chromogenic IHC Staining of Frozen Tissue Sections</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>HGF in Mouse Skeletal Muscle.</b> HGF was detected in perfusion fixed frozen sections of mouse skeletal muscle using Goat Anti-Mouse HGF Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2207) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for <a href="#">Chromogenic IHC Staining of Frozen Tissue Sections</a>.</p>

PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

HGF, also known as Scatter Factor and Hepatopoietin A, is a pleiotropic protein in the Plasminogen subfamily of S1 peptidases. It is a multidomain molecule that includes an N-terminal PAN/APPLE-like domain, four Kringle domains, and a serine proteinase-like domain that has no detectable protease activity (1-5). Mouse HGF is secreted as an inactive 728 amino acid (aa) single chain propeptide. It is cleaved after the fourth Kringle domain by a serine protease to form bioactive disulfide-linked HGF with a 60 kDa  $\alpha$  and 30 kDa  $\beta$  chain. Alternate splicing generates an isoform that lacks the peptidase and the second, third, and fourth Kringle domains. Mouse HGF shares 91%-95% aa sequence identity with bovine, canine, feline, human, and rat HGF. HGF binds heparan-sulfate proteoglycans and the widely expressed receptor tyrosine kinase, HGF R/c-MET (6, 7). HGF-dependent c-MET activation is implicated in the development of many human cancers (8). HGF regulates epithelial morphogenesis by inducing cell scattering and branching tubulogenesis (9, 10). HGF induces the upregulation of integrin  $\alpha 2\beta 1$  in epithelial cells by a selective increase in  $\alpha 2$  gene transcription (11). This integrin serves as a collagen I receptor, and its blockade disrupts epithelial cell branching tubulogenesis (11, 12). HGF can also alter epithelium morphology by the induction of nectin-1 $\alpha$  ectodomain shedding, an adhesion protein component of adherens junctions (13). In the thyroid, HGF induces the proliferation, motility, and loss of differentiation markers of thyrocytes and inhibits TSH-stimulated iodine uptake (14). HGF promotes the motility of cardiac stem cells in damaged myocardium (15).

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