**DESCRIPTION**

**Species Reactivity** Mouse

**Specificity** Detects mouse HGF R/c-MET in ELISAs and Western blots. In sandwich immunoassays, less than 0.2% cross-reactivity with recombinant human HGF R, recombinant mouse (rm) HGF A, and rmMSP R is observed.

**Source** Polyclonal Goat IgG

**Purification** Antigen Affinity-purified

**Immunogen** S. frugiperda insect ovarian cell line Sf21-derived recombinant mouse HGF R/c-MET Glu25-Asn929 Accession # P16056

**Formulation** Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

**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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
<th>Reagent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
<td>Recombinant Mouse HGF R/c-MET Fc Chimera (Catalog # 527-ME)</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</td>
<td>Immersion fixed frozen sections of mouse embryo (E13)</td>
</tr>
<tr>
<td><strong>Mouse HGF R/c-MET Sandwich Immunoassay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELISA Capture</td>
<td>2-8 μg/mL</td>
<td>Mouse HGF R/c-MET Antibody (Catalog # MAB5271)</td>
</tr>
<tr>
<td>ELISA Detection</td>
<td>0.1-0.4 μg/mL</td>
<td>Mouse HGF R/c-MET Biotinylated Antibody (Catalog # BAF527)</td>
</tr>
<tr>
<td>Standard</td>
<td></td>
<td>Recombinant Mouse HGF R/c-MET Fc Chimera (Catalog # 527-ME)</td>
</tr>
</tbody>
</table>

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

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

**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.
HGF R, also known as Met (from N-methyl-N-nitro-N-nitrosoguanidine induced), is a glycosylated receptor tyrosine kinase that plays a central role in epithelial morphogenesis and cancer development. HGF R is synthesized as a single chain precursor which undergoes cotranslational proteolytic cleavage. This generates a mature HGF R that is a disulfide-linked dimer composed of a 50 kDa extracellular α chain and a 145 kDa transmembrane β chain (1, 2). The extracellular domain (ECD) contains a seven bladed β-propeller sema domain, a cysteine-rich PSI/MRS, and four Ig-like E-set domains, while the cytoplasmic region includes the tyrosine kinase domain (3, 4). An alternately spliced form of mouse HGF R lacks a cytoplasmic juxtamembrane region important for regulation of signal transduction (5, 6).

The sema domain, which is formed by both the α and β chains of HGF R, mediates both ligand binding and receptor dimerization (3, 7). Ligand-induced tyrosine phosphorylation in the cytoplasmic region activates the kinase domain and provides docking sites for multiple SH2-containing molecules (8, 9). HGF stimulation induces HGF R downregulation via internalization and proteasome-dependent degradation (10). In the absence of ligand, HGF R forms noncovalent complexes with a variety of membrane proteins including CD44v6, CD151, EGF R, Fas, integrin α6/β4, plexins B1, 2, 3, and MSP R/Ron (11-18). Ligation of one complex component triggers activation of the other, followed by cooperative signaling effects (11-18). Formation of some of these heteromeric complexes is a requirement for epithelial cell morphogenesis and tumor cell invasion (11, 15, 16). Paracrine induction of epithelial cell scattering and branching tubulogenesis results from the stimulation of HGF R on undifferentiated epithelium by HGF released from neighboring mesenchymal cells (19). Genetic polymorphisms, chromosomal translocation, overexpression, and additional splicing and proteolytic cleavage of HGF R have been described in a wide range of cancers (1). Within the ECD, mouse HGF R shares 87%, 87%, and 94% amino acid sequence identity with canine, human, and rat HGF R, respectively.

References: