Mouse HGFR/c-MET Antibody

Monoclonal Rat IgG_{2A} Clone # 118627

Catalog Number: MAB5271

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse HGF R in ELISAs. In a sandwich ELISA, no cross-reactivity or interference was observed with recombinant human (rh) HGF R, rmHGFA, or rhMSP R.
Source	Monoclonal Rat IgG_{2A} Clone # 118627
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse HGF R Glu25-Asn929 Accession # P16056
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.

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.*

Mouse HGF R/c-MET Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse HGFR/c-MET Antibody (Catalog # MAB5271)
ELISA Detection	0.1-0.4 µg/mL	Mouse HGFR/c-MET Biotinylated Antibody (Catalog # BAF527)
Standard		Recombinant Mouse HGFR/c-MET Fc Chimera (Catalog # 527-ME)

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.
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

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.

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