Mouse HAI-1 Antibody

Monoclonal Rat IgG_{2A} Clone # 199732

Catalog Number: MAB1141

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse HAI-1 in Western blots and direct ELISAs. In Western blots, no cross-reactivity with recombinant mouse (rm) HAI-2B or rmHAI-2A is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 199732
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse HAI-1 Glu30-Glu443 Accession # Q9R097
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse HAI-1 (Catalog # 1141-PI) under non-reducing conditions only
Mouse HAI-1 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse HAI-1 Antibody (Catalog # MAB1141)
ELISA Detection	0.1-0.4 µg/mL	Mouse HAI-1 Biotinylated Antibody (Catalog # BAF1141)
Standard		Recombinant Mouse HAI-1 (Catalog # 1141-PI)

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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

Hepatocyte growth factor activator inhibitor-1 (HAI-1) encoded by the Spint1 gene is a Kunitz-type serine protease inhibitor, identified as a strong inhibitor of HGF activator (HGFA) and matripase (1). The membrane-anchored HAI-1 consists of two Kunitz domains, a LDL-receptor-like domain, and a C-terminal transmembrane domain (2). Two soluble forms are generated by ectodomain shedding, one with a single Kunitz domain and the other with two Kunitz domains. HAI-1 is not only an inhibitor but also a specific receptor of active HGFA, acting as a reservoir of this enzyme on the cell surface (3). The shedding of HAI-1 and HGFA/HAI-1 complex is enhanced by treatment with phorbol 12-myristate, 13-acetate or IL-1β. The regulated shedding is completely inhibited by a synthetic zinc metalloprotease inhibitor (3).

References:

1. Denda, *et al.* (2002) J. Biol. Chem. **277**:14053.
2. Shimomura, *et al.* (1997) J. Biol. Chem. **272**:6370.
3. Kataoka, *et al.* (2000) J. Biol. Chem. **275**:40453.

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