

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human HAI-1 in ELISAs. In sandwich immunoassays, no cross-reactivity with recombinant mouse HAI-1, recombinant human (rh) TFPI, rhTFPI-2, rhAPP, rhHAI-2A, rhGASP-1, or rhGASP-2 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 169428
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human HAI-1 Pro37-Val449 Accession # O43278
<b>Formulation</b>	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.

Human HAI-1 Sandwich Immunoassay		Reagent
<b>ELISA Capture</b>	2-8 µg/mL	Human HAI-1 Antibody (Catalog # <a href="#">MAB10481</a> )
<b>ELISA Detection</b>	0.5-2.0 µg/mL	Human HAI-1 Biotinylated Antibody (Catalog # <a href="#">BAM10482</a> )
<b>Standard</b>		Recombinant Human HAI-1 (Catalog # <a href="#">1048-PI</a> )

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

HAI-1 is a Kunitz-type serine protease inhibitor, identified as a strong inhibitor of HGF activator (HGFA) and matriptase (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, K. *et al.* (2002) J. Biol. Chem. **277**:14053.
2. Shimomura, T. *et al.* (1997) J. Biol. Chem. **272**:6370.
3. Kataoka, H. *et al.* (2000) J. Biol. Chem. **275**:40453.