

## DESCRIPTION

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Mouse   |
| <b>Specificity</b>        | Detects mouse Fetuin A/AHSG in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) Cystatin A, D, S, SA, SN, recombinant mouse (rm) Cystatin B, C, E/M, rhFetuin A, rhFetuin B, rmHPRG or rhKininogen is observed. |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 207431   |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse Fetuin A/AHSG<br>Ala19-Ile345<br>Accession # P29699   |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied 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.

|                     | <b>Recommended Concentration</b> | <b>Sample</b>                                       |
|---------------------|----------------------------------|---|
| <b>Western Blot</b> | 1 µg/mL                          | Recombinant Mouse Fetuin A/AHSG (Catalog # 1563-PI) |

## 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.<br>*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

Mouse Fetuin A, also known as  $\alpha_2$ -Heremans-Schmid glycoprotein, is encoded by the AHSG gene. It has been also called "countertrypsin" because of its ability to inhibit trypsin (1). It is a major plasma protein and a member of the cystatin superfamily of protease inhibitors (2, 3). It is expressed by hepatocytes, the principal cell source, and by monocyte/macrophages (4). The major form of plasma Fetuin A corresponds to two disulfide bond-linked chains derived from the single chain (5). Fetuin-A has a number of functions. It is a negative acute-phase protein with normal circulating levels in adults (300-600 µg/mL), which fall significantly (30-50%) during injury and infection (5). It enhances entry of cationic inhibitors into macrophages (6). It inhibits both insulin receptor autophosphorylation and undesirable calcification (7, 8).

## References:

1. Yamamoto, K. and H. Sinohara (1993) J. Biol. Chem. **268**:17750.
2. Kelleman, J. *et al.* (1989) J. Biol. Chem. **264**:14121.
3. Dziegielewska, K.M. *et al.* (1990) J. Biol. Chem. **265**:4354.
4. Dziegielewska, K.M. *et al.* (1996) Histochem. Cell Biol. **106**:319.
5. Gejyo, F. and K. Schmid (1981) Biochim. Biophys. Acta **671**:78.
6. Wang, H. *et al.* (1998) Proc. Natl. Acad. Sci. USA **95**:14429.
7. Mathews, S.T. *et al.* (2000) Mol. Cell Endocrinol. **164**:87.
8. Schäfer, C. *et al.* (2003) J. Clin. Invest. **112**:357.