

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fetuin A in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity is observed with rmFetuin A.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Fetuin A
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.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Fetuin A/AHSG (Catalog # 1184-PI)
Human Fetuin A/AHSG Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human Fetuin A/AHSG Antibody (Catalog # MAB11841)
ELISA Detection	0.1-0.4 µg/mL	Human Fetuin A/AHSG Biotinylated Antibody (Catalog # BAF1184)
Standard		Recombinant Human Fetuin A/AHSG (Catalog # 1184-PI)

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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

Human Fetuin A, also known as α_2 -Heremans-Schmid glycoprotein, is encoded by the AHSG gene. It is a major plasma protein and a member of the cystatin superfamily of protease inhibitors (1, 2). It is expressed by hepatocytes, the principal cell source, and by monocyte/macrophages (3). The major form of plasma Fetuin A corresponds to a disulfide bond-linked two chains derived from the single chain (4). Human 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 (6, 7). The purified rhFetuin A corresponds to the single chain, which can be converted to the two-chain form by rhFurin (R&D Systems, Catalog # 1503-SE) *in vitro*. However, the conversion does not enhance its inhibitory activity against rhCathpsin V, a cysteine protease.

References:

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