

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fetuin A in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse Fetuin A, recombinant human (rh) Cystatin D, rhCystatin E/M, rhCystatin S, rhCystatin SA, and rhCystatin C is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Fetuin A/AHSG
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

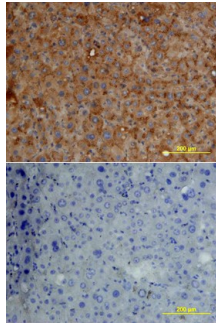
APPLICATIONS

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)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Fetuin A/AHSG in Human Liver. Fetuin A/AHSG was detected in immersion fixed paraffin-embedded sections of human liver array using Goat Anti-Human Fetuin A/AHSG Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1184) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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 rhCathpesin 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.