Human Fetuin A/AHSG Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1184

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. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

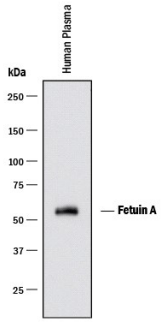
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

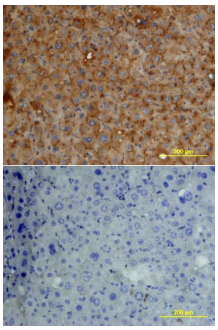
DATA

Western Blot



Detection of Human Fetuin A/AHSG by Western Blot. Western blot shows human plasma. PVDF membrane was probed with 0.1 µg/mL of Goat Anti-Human Fetuin A/AHSG Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1184) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Fetuin A/AHSG at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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. *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

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. Kellemann, 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.

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