

Product Information

Anti-Fetuin A antibody, Mouse monoclonal

Clone FetA-M, purified from hybridoma cell culture

Product Number **SAB4200820**

Product Description

Monoclonal Anti-Fetuin A (mouse IgM isotype) is derived from the FetA-M hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a BALB/C mouse immunized with a synthetic peptide corresponding to the internal region of human AHSG (Fetuin A) (GenelD: 197), conjugated to KLH as immunogen. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Fetuin A specifically recognizes fetuin A from human plasma. The antibody is recommended for use in various immunological techniques including immunoblotting, immunohistochemistry, and ELISA.

Fetuin A, also known as Alpha-2-HS-glycoprotein (AHSG), Alpha-2-Z-globulin, or Ba-alpha-2-glycoprotein, is a member of the cystatin superfamily of cysteine protease inhibitors.¹ Fetuin A is a secreted calcium-regulatory glycoprotein produced by liver hepatocytes. It is cleaved into two chains bound by disulfide bonds and inhibits ectopic $\text{Ca} \times \text{PO}_4$ ion precipitation and vascular calcification.¹⁻² By counteracting the production of proinflammatory cytokines, fetuin A is considered to be a negative acute-phase reactant and its serum concentration decreases in response to inflammation, compared with normal levels. In addition, it acts as a mineral chaperone to facilitate the transport and removal of potentially proinflammatory and procalcific cargo (waste).¹

Fetuin A plays a major role in numerous diseases and pathophysiological conditions involved with calcium metabolism. Serum fetuin A levels are significant for monitoring, managing, and treating many diseases and disorders including diabetes, cardiovascular diseases, atherosclerosis, metabolic syndrome, obesity, multiple sclerosis, pancreatic cancer, breast cancer, colon cancer, hepatocellular carcinoma, malaria, alcohol liver cirrhosis, chronic dialysis, kidney malfunction, polycystic ovary syndrome, nonalcoholic fatty liver disease, neuroinflammation, arthritis, and aging.¹⁻³

Antibodies for specific detection of fetuin A are commonly used in diagnostic and technologies for monitoring fetuin A levels are growing and emerging in the market.^{1,4}

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20°C . For continuous use, store at $2-8^{\circ}\text{C}$ for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 $\mu\text{g/mL}$ is recommended using human serum.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration test.

References

1. Vashist, S.K. et al., *Trends Biotechnol.*, **35**, 407-421 (2017).
2. Stenvinkel, P. et al., *Kidney Int.*, **67**, 2383-92 (2005).
3. Bláha, V. et al., *Clin. Biochem.*, **42**, 996-1000 (2009).
4. Uygun, Z.O. et al., *Anal. Biochem.*, **542**, 11-15 (2018).

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