

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat Fetuin A/AHSG in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse Fetuin A is observed, and less than 3% cross-reactivity with recombinant human Fetuin A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat Fetuin A/AHSG Ala19-Ile352 Accession # P24090
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Fetuin A (from the Latin word fetus for "offspring"; also α2-HS [Heremans and Schmid] glycoprotein/AHSG, 59 kDa BSP and pp63) is a 59-63 kDa soluble, highly glycosylated type 3 member of the fetuin family of proteins. Originally isolated from fetal calf serum, rat fetuin A is now reported to be secreted by hepatocytes and, possibly, osteoblasts. Functionally, fetuin A appears to complex with matrix Gla protein, bind calcium phosphate and to regulate matrix mineralization. While it does not dissolve existing mineral, it does inhibit unwarranted tissue mineralization and the inflammatory reaction that accompanies it. A role for fetuin A in the regulation of insulin receptor signaling is unclear. Mature rat fetuin A is 334 amino acids (aa) in length. It contains two cystatin fetuin A type I domains (aa 19-133 and 144-250) that control mineralization, and a C-terminal domain (aa 255-352) that may interact with the insulin receptor. There are at least four utilized phosphorylation sites at Ser138, 313, 316 and 318, and one potential internal cleavage site between Arg143-Lys144 that, if utilized, would generate a disulfide-linked heterodimer. Mature rat fetuin A shares 85% and 61% aa sequence identity with mouse and human fetuin A, respectively.

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