



Recombinant Protein Technical Manual

Recombinant Human Fetuin-A/AHSG Protein (His Tag)(Active)

RPES4458

Product Data:

Product SKU: RPES4458

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001613.2

Protein Information:

Molecular Mass: 38.8 kDa

AP Molecular Mass: 55-60 kDa

Tag: C-His

Bio-activity: 1. Measured by its binding ability in a functional ELISA. Immobilized human FCN1 at 10 µg/ml can bind biotinylated recombinant human Fetuin-A with a linear range of 16-2000 ng/ml. 2. Measured by its ability to inhibit active Cathepsin V cleavage of a fluorogenic peptide substrate Z-LR-AMC, R&D Systems, Catalog # ES008. The IC50 value is < 100 nM.

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.2

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: Alpha-2-HS-Glycoprotein; Alpha-2-Z-Globulin; Ba-Alpha-2-Glycoprotein; Fetuin-A; AHSG; FETUA

Immunogen Information:

Sequence: Met 1-Val 367

Background:

Fetuin-A, also known as Alpha-2-HS-Glycoprotein (AHSG), belongs to the Fetuin family, is a plasma binding protein, and is more abundant in fetal than adult blood. It is involved in several functions, such as endocytosis, brain development and the formation of bone tissue. Fetuins are carrier proteins like albumin. Fetuin-A forms soluble complexes with calcium and phosphate and thus is a carrier of otherwise insoluble calcium phosphate. Thus Fetuin-A is a potent inhibitor of pathological calcification. The circulating levels of fetuin-A, a well-described inhibitor of calcification, regulate the cell-dependent process of osteogenesis. The low circulating fetuin-A levels are associated with a greater prevalence and/or severity of Vascular calcification (VC) and increased risk for all-cause and cardiovascular mortality. However, high circulating fetuin-A levels appear to induce insulin resistance and, in non-dialyzed subjects with diabetic nephropathy, are directly related to VC burden. The emerging role of fetuin-A deficiency as a risk factor in dialysis patients was documented in cross-sectional studies demonstrating a significant correlation with all-cause and cardiovascular mortality. Additionally, Human fetuin-A is a negative acute phase protein involved in inflammatory diseases, thus being a potential physiological regulator of meprin activity. Fetuin-A is a broad-range protease inhibitor. Fetuin-A and cystatin C as endogenous proteolytic regulators of meprin activity broadens our understanding of the proteolytic network in plasma.