

Recombinant Protein Technical Manual Recombinant Human AFM/Afamin Protein (His Tag)

RPES4276

Product Data:

Product SKU: RPES4276 **Size:** 20μg

Species: Human Expression host: HEK293 Cells

Uniprot: P43652

Protein Information:

Molecular Mass: 68 kDa

AP Molecular Mass: 68-94 kDa

Tag: C-His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: $< 1.0 \text{ EU per } \mu\text{g}$ of the protein 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 7.4

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

Application:

Synonyms: ALB2;ALBA;ALF

Immunogen Information:

Sequence: Met 1-Asn599

Background:

Afamin is an 87 kDa glycoprotein with five predicted N-glycosylation sites. Afamin's glycan abundance contributes to conformational and chemical inhomogeneity presenting great challenges for molecular structure determination. Afamin, a human plasma glycoprotein and putative transporter of hydrophobic molecules, has been shown to act as extracellular chaperone for poorly soluble, acylated Wnt proteins, forming a stable, soluble complex with functioning Wnt proteins. The 2.1-Å crystal structure of glycosylated human afamin reveals an almost exclusively hydrophobic binding cleft capable of harboring large hydrophobic moieties. Afamin plays a role in anti-apoptotic cellular processes related to oxidative stress and is associated with insulin resistance and other features of metabolic syndrome. Afamin may serve as a new early biomarker for pathological glucose metabolism during pregnancy. And first trimester screening for pre-eclampsia could be provided by a combination of afamin and placental bed vascularization. Moreover, the combination of first trimester serum afamin levels with BMI could provide a possible screening for gestational diabetes mellitus.